

By East India Company, or in their Ships by permission.		By Private Ships under British Flags.	
Articles.	Value in Dollars.	Articles.	Value in Dollars.
Tea.....	8,542,343	Tutenague.....	19,200
Raw silk	449,328	Raw silk	2,205,360
Nankeen	844	Nankeen	160,941
Sugar and sugarcandy.....	1,233	Sugar and sugarcandy.....	560,349
Drugs.....	4,254	Tea.....	212,783
Silk piece-goods.....	26,400	Cassia and cassia buds.....	57,040
Block-tin.....	12,096	Drugs.....	155,903
Mother-of-pearl shells.....	12,529	Silk piece-goods.....	221,461
Tortoise-shell.....	5,767	Tortoise-shell	13,250
Mats	3,829	Mother-of-pearl.....	25,466
Bamboos.....	5,846	False pearls	48,094
		China-ware.....	43,179
		Writing paper, toys, &c.....	83,840
		South American copper.....	96,810
		Cotton goods.....	14,250
		Cotton yarn.....	73,536
Total.....	9,179,170	Total.....	6,123,166
Bullion... ..	1,902,082	Add Company and private trade.....	11,081,252
	11,081,252		17,204,418

Popu-
lation.

An accurate census of the population is still a desideratum in the statistics of Hindustan. Partial estimates have indeed been made in different districts, by the industry of British judges and magistrates; but these do not agree with subsequent and more accurate inquiries. In 1801, returns were made at the desire of the supreme government, of the population of several districts in Bengal, by the magistrates and collectors, which are generally believed greatly to underestimate the population. In 1808, Dr Buchanan, by the direction of government, framed, from the most careful inquiries, an accurate census of certain districts of Bengal, which created astonishment, as his estimate was more than three times that of the collector, and more than double that of the magistrate. It was confirmed, however, by the careful investigations of Mr Bayley in 1814, and is now generally relied on for its accuracy. An estimate has been published

by authority, of the number of the villages and houses in Lower Bengal; from which, reckoning five inmates to a house, the population has been computed at 37,238,265 souls. Other computations, made on different data, produce nearly the same result. From an accurate survey of one district, the inhabitants on each square mile were found to amount to 2003; and this principle of computation being generally applied to Bengal, will give a population of 33,590,770. But it is only in particular provinces that there is even this approximation to accuracy. In the remote districts and provinces we have no data for a confident estimate; and there is no general census of Hindustan which rests on any higher authority than plausible conjecture, and which may not be erroneous by many millions. We subjoin the following population table, which seems to be as accurate as any that has yet been constructed.¹

¹ Notwithstanding the ravages committed by incessant wars and revolutions, as well as by famine and pestilence, their usual concomitants, India has, from the earliest times, been a densely-peopled country. In different states of society, the law of the increase of mankind will vary according to their relative circumstances and position, and the same or nearly the same principle will be found to apply to those classes who are placed at the opposite extremities of the scale. Amongst a people who are possessed of affluence, or the means of commanding the necessaries and comforts of life, the exercise of moral restraint is unnecessary; amongst those who are reduced to a mere physical subsistence, without the possibility, and consequently without the desire, of improving their condition, it will be disregarded; and hence the same results will follow from causes in their own nature diametrically opposite. But in India the great mass of the population have for ages been placed in a situation which excludes all idea of improvement; and religion has lent its powerful aid to obstruct the operation of those natural causes which, in other countries, have served to ameliorate the condition of the people. Confined to the use of vegetable food, inhabiting a country the nature of whose climate renders the greatest simplicity of attire and of household accommodation sufficient for all purposes absolutely necessary to mere existence, and prevented by the law of caste from ever passing beyond the condition in which the accident of birth may have placed them, the natives of India, habituated to a minimum of the simplest fare, or what in other countries would be considered as a famine allowance, have, in spite of all the grinding exactions of despotism, and the devastations of war, conquest, and anarchy, continued to increase and multiply, and, at every period of their history, the population has been found to press harder than in any other part of the world upon the means of subsistence. Amongst a people so circumstanced, with a religion which tends at once to inflame the animal passions, and to debase the understanding, it would therefore be vain to expect that those moral considerations which operate as a restraint amongst other communities of mankind, should have any effect whatever in controlling the impulses of nature, or checking that tendency to excess, which has originated the most difficult problem connected with the science of government. Of all productions, that of human beings is the least susceptible of regulation; and as it is frequently found to advance most steadily in countries where poverty and misery have reached the extreme point of depression, and become almost universal, the only checks which can prove even temporarily effective, are those great and wide-spreading desolations to which we have alluded, combined with that permanent disregard of life which is found to prevail wherever mankind generally are reduced to the condition of the Hindus, and which, amongst the latter, is fostered by the barbarous rites of a cruel and sanguinary superstition. But it may be permitted to hope, that though India always has been, it will not always be, what it now is; that the extension of commerce, under the protection of a vigorous and impartial government, will awaken new ideas in the minds of the people; that security to person and property will give a strong stimulus to industry; that the habitual contact with a higher and more rational form of civilization will serve to mitigate their prejudices, and, in time, to destroy the influence of a debasing superstition; and that, in proportion as their wants are multiplied, their efforts to ameliorate their condition will be increased.

	British Square Miles.	Population.
Bengal, Bahar, and Benares.....	162,000	39,000,000
Additions in Hindustan since A. D. 1765.....	148,000	18,000,000
Gurwal, Kumaon, and the track between the Sutledge and Jumna..	18,000	500,000
Under the Bengal presidency.....	328,000	57,500,000
Under the Madras presidency.....	154,000	15,000,000
Under the Bombay presidency.....	11,000	2,500,000
Territories in the Deccan, &c. acquired since 1815, and not yet attached to any presidency.....	60,000	8,000,000
Total under the British government.....	553,000	83,000,000
<i>British Allies and Tributaries.</i>		
The Nizam.....	96,000	10,000,000
The Nagpoor rajah.....	70,000	3,000,000
The king of Oude.....	20,000	3,000,000
The Guicowar.....	18,000	2,000,000
Kotah 6500, Boondee 2500, Bopaul 5000.....	14,000	1,500,000
The Mysore rajah.....	27,000	3,000,000
The Satarah rajah.....	14,000	1,500,000
Travancore 6000, Cochin 2000.....	8,000	1,000,000
Under the rajahs of Joudpoor, Jeypoor, Odeypoor, Bicanere, Jesselmere, and other Rajpoot chiefs; Holcar, Ameer Khan, the Row of Cutch, and innumerable other petty native chiefs; Sikhs, Gonds, Bheels, Coolies, and Catties, all comprehended within the line of British protection.....	283,000	15,000,000
Total British and their allies.....	1,103,000	123,000,000
<i>Independent States.</i>		
The Nepal rajah.....	53,000	2,000,000
The Lahore rajah (Runjeet Singh).....	50,000	3,000,000
The Ameers of Scinde.....	24,000	1,000,000
The dominions of Scindia.....	40,000	4,000,000
The Cabul sovereign.....	10,000	1,000,000
Grand total of Hindustan.....	1,280,000	134,000,000

Other calculations, on data sufficiently plausible, swell the population under the dominion of the British, including the allied and protected states, to 200,000,000. There is of course considerable uncertainty in all these accounts.

Races.

A country of such vast extent, under one common appellation, and subdivided by many impassable tracts of mountain and jungle, comprises, as may readily be imagined, numerous races, differing in their origin, in their physical aspect and frame, in their manners, customs, in their respective advances in civilization and pursuits, as well as in their modes of faith and language; and accordingly Bishop Heber, who excels all other writers in the delineation of Indian manners, observes, that "it is a great mistake to suppose that all India is peopled by a single race, or that there is not as great a disparity between the inhabitants of Guzerat, Bengal, the Doab, and the Deccan, both in language, manners, and physiognomy, as between any four nations of Europe;" and in another passage he says, "the inhabitants of the presidencies of Madras and Bombay, and of the Deccan, are as different from the nations I have seen, and from each other, as the French and Portuguese from the Greeks, Germans, and Poles."¹ A minute account of the various races and castes, with the still more various subdivisions into which the inhabitants of Hindustan are

distinguished, would fill a volume, and would besides be exceedingly tedious. A general description, however, of the most remarkable tribes which compose the mixed population of this extensive country, forms an essential part of its history. The great division of the people is into Hindus and Mahomedans, in the proportion of about seven to one. And these two great classes are distinguished not more by their religion than by their peculiar disposition and character. The Hindu is careful, penurious, and abstemious in his habits; timid, obsequious, and fawning in his manners; chiefly attaining his ends by deceit and cunning, the usual resource of weakness; whilst the Mussulman still retains the haughty and irascible character of a conqueror, and his hostility to the English, which he is at no pains to conceal, like the Hindu, by an obsequious demeanour. He is withal prodigal, luxurious, fond of ease and pleasure, and dissolute to excess in his morals; more courageous and martial, however, with more energy of purpose and elevation of sentiment, and more cultivated, than the Hindu of Bengal. In the population of Bengal these two races may easily be distinguished from each other; and amongst the Mahomedans, the Mogul, the Afghan, and their immediate descendants, may be known amongst the native Mussulmans. The features of the Ben-

¹ Heber's *Journal*, vol. iii. p. 342.

Hindustan. gales distinguish him from the other inhabitants of Hindustan. He is stigmatised as of a cowardly disposition, and, from whatever cause, is not esteemed throughout the country. With these two principal classes are intermingled, in very small proportions, British, Armenians, a peaceable race, and highly honourable in their dealings, Portuguese, and other Christians. The Parsees are numerous in the island of Bombay, where they amount to 10,738; they are descendants of the Guebres or fire-worshippers, are a fine race, being generally engaged in traffic, and distinguished in their dealings by the highest integrity and intelligence. The Jews are numerous in India, and many are to be found in the Bombay army, where they have often behaved bravely. The Asiatic Jews are distinguished by a large Roman nose. The Mahrattas, a powerful tribe, have been long distinguished in the wars and politics of India. They are chiefly found in the Deccan, which contains about 3,285,985 inhabitants, of whom they compose about three fifths. They were originally a pastoral and warlike people from the mountains of Berar, who with a host of cavalry invaded and desolated the adjacent provinces with fire and sword, and at length acquired an extensive empire. Minute shades of difference prevail amongst them, but no distinctions of caste; every Mahratta eating with his neighbour, unless, which often happens, he be expelled from his caste. They are not a military caste, as appears from the names of farmer, shepherd, and cowherd, by which their principal tribes are known; and also from their exterior, which marks an origin different from that of the military Rajpoot. They are of a diminutive size, generally badly made, and of a mean look and rapacious disposition; whilst the Rajpoot has both personal grace and dignity. The memorable battle of Paniput, fought in 1761, gave a blow to the Mahratta power, from which it never recovered; and the confederacy was entirely dissolved in 1817, when the peshwa, the great feudal chief of the empire, surrendered to the British, and was by them confined as a state prisoner. The nation derives its name from Mahratt, a province of the Deccan; though it is the opinion of some that the Mahrattas migrated from Persia about 1200 years ago.¹ The Mahratta language is widely spread over India. It is remarkable, that in proceeding northward into Northern and Central India, and into the Rajpoot states, the people far excel in strength and stature the feeble Hindu of the southern provinces, being fully equal in their bodily frame to Europeans. "They despise," says Bishop Heber, "rice and rice eaters, feeding on wheat and barley bread, exhibiting in their appearance, conversation, and habits of life, a grave, proud, and decidedly a martial character, accustomed universally to the use of arms and athletic exercises from their cradles, and preferring very greatly military service to any other means of livelihood." The character of the Rajpoots, the Sikhs, and the Jauts, fully answers to this animated description of a warlike race. The tribe of Jauts or Jats was little known in India till about the year 1700, when they migrated from the banks of the Indus, and became industrious cultivators in the Doab, or the country between the Ganges and the Jumna. During the civil wars which ensued on the death of Aurungzebe, they acquired a large extent of territory, in which they built forts, and accumulated wealth. They were noted plunderers; and it was out of the spoil taken from Aurungzebe's army in its retreat from the Deccan that the fortress of Bhurtpore was erected, in the gallant defence of which against the British they fully sustained the character of brave soldiers. Their claim to the distinction of a military caste has, however, been disputed; and it is said, that though success has emboldened them to

assume that honourable title (*Mhetri*), they were originally Hindustan. a low tribe of sudras or labourers. They also affix to their name *singh*, a lion, which probably belongs only to the Rajpoots. The Jauts are said by Bishop Heber to be the finest people in bodily advantages and in martial spirit which he had seen in India, and their country one of the most fertile and best cultivated. They have a high character for valour throughout Hindustan; insomuch, adds the writer above quoted, "that when I was passing through Malwah, 'gallantee shows,' like those carried about by the Savoyards, were exhibited at the fairs and in the towns of that wild district, which displayed, amongst other patriotic and popular scenes, the red coats driven back in dismay from the ramparts, and the victorious Jauts pursuing them sabre in hand."² The lower classes of Jauts found in the barren tracts of Ajmere, and in Northern India, are however differently described, being of small stature, ill-looking, and black in complexion, and their condition that of squalid poverty. The Sikhs were originally a religious sect, of which the founder, Nanak, was born A. D. 1419, in the province of Lahore; and the word Seik, properly Sikh or Siksha, in the old Sanscrit, signifies a disciple or devoted follower. He left two sons, from whom are descended 1400 families, called Shahzadehs, who live at Dera, in the Punjab, highly respected. His successors were spiritual chiefs, until the year 1675, when Gooroo Govind, a warrior, succeeded. He converted the Sikhs from religious sectaries into ferocious soldiers; he changed their name from Sikh to Singh, signifying a lion, the title claimed and highly prized by the Rajpoots; and enjoined his followers to cut off their hair, or to shave their beards. The tribe consider this chief to be the founder of their political independence, and Nanak of their religion. The Sikhs acquired power during the convulsions that followed the death of Aurungzebe, and after the invasion of Nadir Shah. They were severely checked by the Mahomedans, and were nearly exterminated by the victorious Afghans after the battle of Paniput in 1761. But their valour still triumphed in the struggle, until they acquired and consolidated their present possessions under Runjeet Singh, who has reduced under his own powerful sway all the petty principalities in the country. The 'eagle eye, Roman nose, and flowing beard, of the Sikh cavaliers, give them a noble appearance; and in horsemanship they are not excelled by any other nation either of Europe or Asia. Colonel Todd, in his great work on Rajasthan, describes the appearance of the Rajpoot cultivators in the valley of Odeypoor, who came to meet him in a body, "as being so striking as to draw forth the spontaneous exclamation from his friend, 'what noble looking fellows!'" "Their tall and robust figures," he adds, "sharp aquiline features, and flowing beards, with a native dignity of demeanour, though, excepting their chiefs, who wore turbans and scarfs, they were in their usual labouring dresses, immense loose breeches, and turbans, compelled admiration and respect."³ Their cast of countenance is Hindu, somewhat altered by their long beards; they are active, and more robust than the Mahrattas, owing to better living and a healthier climate; and rival in courage the most renowned tribes of India. They evince in battle the most determined contempt of personal danger, and are easily roused to desperation by prejudice or religion; they act as infantry in foreign armies, and as cavalry at home. Their address is bold and somewhat rough; they speak invariably in a loud bawling tone of voice; and are dissolute in their habits, indulging so freely in spirituous liquors, which their religion allows, though tobacco is prohibited, and in opium and bang, an intoxicating drug, that a Sikh sol-

¹ *Indian Recreations*, vol. i. p. 20. *Hamilton's Description of Hindustan*, vol. ii. p. 483.

² *Heber's Journal*, vol. iii. p. 369.

³ *Annals and Antiquities of Rajasthan*, vol. i. Personal Narrative, p. 667.

Hindustan. dier is rarely sober after sunset. The Sikhs are allowed to eat the flesh of all animals except the cow. They are strict in their religious observances; and converts, whether Hindu or Mahomedan, must give up all customs which infringe the tenets of Nanak, or the military institutes of Gooroo Govind. The military class highly relish the flesh of the jungle hog, of which they compel Mahomedan converts to partake, and also to abstain from circumcision. The Sikh merchant or cultivator, if he be a Singh, is still a soldier in his habits, as he wears arms, and is well trained from his infancy to the use of them. The original followers of Nanak, the Kalasa Sikhs, differ widely from the warrior tribe. They are as pliant, versatile, and insinuating in their manners as the lower class of Hindus, whom they so much resemble in their dress and appearance as not to be readily distinguished. The descendants of Nanak are a mild, inoffensive race; and the other religious tribes retain their peculiar manners.

The Rajpoots inhabit the Rajpoot states of Mewar or Odeypoor, Marwar or Joudpoor, Bicanere and Kishenagur, Kotah, Boondi, Amber or Jeepoor, Jesselmere, and the Indian desert to the valley of the Indus. They are the children of the sun and the moon; and, in memory of their great ancestor the radiant Surya, or Apollo, many of them wear badges of gilt metal round their necks with the image of a sun and moon on horseback. The lineage of both the solar (Soorya) and lunar (Indu) tribes is given by Colonel Todd, on the authority of the Puranas (sacred books), a copy of which, obtained from the library of the Rana of Odeypoor, he carefully consulted, in the presence of a body of learned pundits. This work contains the valuable results of his learned researches into the antiquities and history of the Rajpoot tribes, which were conducted with all the patience and perseverance that an enthusiastic devotion to the subject can alone inspire; and being guided by philosophy, and the most profound knowledge of oriental literature, have thrown great light on the history and character of the ancient inhabitants of Rajpootana. Vyas, the Hindu historian, gives fifty-seven princes of the solar line from Menu to Rama; and fifty-eight from the same period of the lunar race, from Buddha, its founder, to Krishna. The establishment of these two grand races in India is fixed by Colonel Todd at about 2256 years before the Christian era. From Rama all the tribes termed Soor-yavansa or Race of the Sun, claim their descent, namely, the present princes of Mewar, Jeepoor, Marwar, Bicanere, and their numerous clans; whilst from those of Buddha and Krishna the families of Jesselmere and Cutch, extending over the Indian desert, from the Sutledge to the ocean, deduce their pedigrees. Colonel Todd draws a parallel between them and the ancient Scandinavians and Scythians; and the striking resemblance that appears in the manners, customs, and religious opinions of the two nations, he insists, strongly suggests the idea of a common origin. These ancient tribes were devoted to the god of war; and the Rajpoot, he observes, "delights in blood; his offerings to the god of battles are sanguinary, blood and wine. The cup of libation is the human skull. He loves them because they are emblematic of the deity he worships; and he is taught to believe that Hor loves them, who in war is represented with the skull to drink the foeman's blood, and in peace is the patron of wine and women. With Parbutti on his knee, his eyes rolling from the juice of the p'foot and opium, such is this Bacchanalian divinity of war." "Is this Hinduism," he adds, "acquired in the burning plains of India? Is it not rather a perfect picture of the Scandinavian heroes?"¹ This hypothesis of a common origin Colonel Todd further supports from the Rajpoots slaying the

buffalo, hunting the boar and the deer, shooting ducks Hindustan. and wild fowl; from their ancient use of the war-chariot, as appears from the inscriptions and engravings on their monuments; from the order of the birds common amongst them; from their passion for gaming and intoxicating liquors; from their sensual and slothful habits; from their funeral ceremonies, particularly from their immolation of females; and from other peculiarities of manners and customs common to these ancient tribes. The Rajpoots claiming so splendid a descent are distinguished above all other tribes by rank and pride of birth, and high aristocratic feeling; and hence has arisen the barbarous custom among the chiefs of putting to death their female children as soon as they are born, lest they should contract any base alliance. Others say that this custom is occasioned by the practice amongst the Rajpoot princes of providing splendid dowries for their daughters, by which they are frequently impoverished, and to avoid which they murder them in infancy. Colonel Todd, the depth of whose researches into the ancient literature of the Hindus appears in his accurate and lively delineation of the national character and manners of the Rajpoots, ascribes to their chiefs a more ancient and chivalrous descent than many of the royal houses of Europe. "From the most remote periods," he observes, "we can trace nothing ignoble, nor any vestige of vassal origin. Reduced in power, circumscribed in territory, compelled to yield much of their splendour and many of the dignities of birth, they have not abandoned an iota of the pride and high bearing arising from a knowledge of their illustrious and regal descent. The poorest Rajpoot of this day," he adds, "retains all the pride of ancestry, often his sole inheritance; he scorns to hold the plough, or to use his lance but on horseback. In these aristocratic ideas he is supported by his reception among his superiors, and the respect paid to him by his inferiors." These honours and gradations of rank are supported by peculiar privileges, each of the superior orders being entitled to a banner, to kettle-drums, preceded by heralds, and silver maces, with peculiar gifts and personal honours in commemoration of some exploit of their ancestors. Armorial bearings are used by the martial Rajpoots; a golden sun on a crimson field adorns the great banner of Mewar; those of the chiefs bear a dagger, whilst others display a fine coloured flag; and the lion rampant in an argent field was the warlike emblem of the now extinct state of Chanderi.² The Rajpoots are divided into thirty-six royal races, described by Colonel Todd; to each is attached a bard, who is acquainted with all the peculiarities, religious tenets, and ancient history of the tribe. These are subdivided into an infinite variety of lesser clans, each more or less honourable as they can trace their pure descent from the original and illustrious founders of their race. The character of the Rajpoots, as given by Bishop Heber on the authority of Captain Macdonald, the political resident of the Company in that district, is far from favourable. "The people," he observes, "who are generally oppressed, and have been, till very lately, engaged in incessant war, have the vices of slaves added to those of robbers, with no more regard to truth than the natives of our own provinces, exceeding them in drunkenness, fondness for opium, and sensuality, whilst they have a blood-thirstiness from which the great mass of the Hindus are very far removed. Their courage, however, and the gallant efforts they made to defend their territories against the Mahrattas, deserve high praise." They are extremely attached to their respective chiefs, to whom they yield a feudal obedience. The lands are let at low rents, on the condition of military service, every village furnishing its contingent of horsemen on the shortest notice. One of the chiefs who visited the above

¹ See *Annals and Antiquities of Rajasthan*, by Lieutenant-Colonel Todd, p. 68.

² *Ibid.* p. 138.

Hindustan. traveller, and who is said by him to have been a striking specimen of the tribe, is described as "young and handsome, but dirty in his dress, boisterous in his manner, talking with a great deal of gesticulation, many winks, nods, beckonings, and other marks of intelligence; and half drunk." Colonel Todd's work contains an accurate and instructive delineation of the manners and feudal relations amongst the Rajpootana chiefs; of their martial virtues, their romantic fidelity and honour, and their high pride, the parent at once of the noblest deeds and the deepest crimes; with which, according to their enthusiastic annalist, Colonel Todd, their history is stained. Family feuds are frequent amongst them, and last for centuries. They are handed down, as an inheritance, from generation to generation; and thus the debt accumulates with interest, "the deep reversion of delayed revenge," till it is extinguished in the blood of the hostile tribes. Hence murders, burnings, poisonings, mingle in their domestic annals with traits of generosity and romantic valour; and the modern Rajpoots, though they are certainly not improved, differ little in their manners and prejudices from their ancestors.¹

The Bheels, another predatory tribe, inhabiting the mountains situated near the Nerbuddah and the Tuptee rivers, thence extending northward towards Rajpootana, westward towards the province of Gujerat, where they meet the Coolies, and eastward to Gundwana, where they come in contact with the Gonds, two other predatory tribes, are supposed to have been the aborigines of Central India. All these tribes are averse to industry, and subsist by plunder, by hunting, or by cultivation, when all other expedients fail. The Coolies near the sea-coast lived, until lately, by fishing or piracy. The Bheels inhabit the interior; and during the late unhappy era of disorder and rapine in India, terminated by the triumph of the British arms in 1817, they had by their inroads laid waste several districts, and were rapidly increasing in power. They were frequently hired by the native chiefs to assist in their desolating wars, as horsemen or as infantry, armed with bows and arrows, and nearly naked. Thieves and savages as they are, Bishop Heber found that the British officers stationed in that district thought them, on the whole, a better race than their conquerors. "Their word," he observes, "is more to be depended on; they are of a franker and livelier character; their women are far better treated, and enjoy more influence; and though they shed blood without scruple in cases of deadly feud, or in the regular way of a foray, they are not vindictive or inhospitable under other circumstances, several British officers having with perfect safety gone hunting and fishing into their country without escort or guide except what these poor savages themselves cheerfully furnished for a little brandy." The Bheels in the south of Malwah were partly reclaimed by the wise and conciliatory policy of Sir John Malcolm. But in Northern India, in the mountainous tract south of Odeypoor, they are differently treated, and severity has confirmed their primitive habits. To such extremities have they been inflamed, that they cut off the head of a messenger sent to them by the British with an offer of mercy, and fixed it on a bamboo, where it was found next morning, and fled further into the hills. The Gonds are a miserable race in Gundwana, who have been driven, like the Bheels, by their invaders, into the unwholesome fastnesses of the mountains. They approach nearly to a state of nature, and frequently descend from the mountains, especially during the harvest, to plunder their ancient inheritance in the plains. Having within the last fifty years acquired a taste for salt and sugar, they have begun to cultivate the land, in order to obtain these

luxuries. The Gonds bear a striking resemblance to the Hindustan. African negro. The Grassias are another race of plunderers who are numerous in Gujerat, the most western province of India. They have or pretend to have ancient claims on the land, many portions of which were either surrendered to them by the proprietors for the secure possession of the remainder; or they received an annual payment in money (*toda*) in full of all demands, as black-mail was paid in Scotland to the Highland robbers during the disorders of the feudal times. The Grassias seldom levied these claims in person; but, assuming the character of chieftains, they rallied around them a band of adventurers, who levied their *grassia* claim, and who, under this authority, plundered and laid waste the country. These Grassias are of no sect or caste; they include Hindus and Mahomedans indiscriminately. But, of all these predatory races in Hindustan, the Coolies, who haunt the shores of the great salt marsh called the Runn, near the Gulf of Cutch, are the most untameable. They resist every approach to civilization, and pride themselves upon their mean and filthy dress. The tribes of thieves which are found in India, under the various designations of Grassias, Catties, Bhatties, or wandering outlaws who worship the sun and moon, Coolies, Bheels or Mewassies, Meenas, Buddicks, Cozauks, and the like, generally wander along the rugged banks of rivers, or among inaccessible mountains. The Bhats are a singular race, who are most numerous in Gujerat. Some are cultivators, others beggars and itinerant bards or traders; whilst a few are contractors for the payment of the public revenue, receiving a small per centage on the amount, or guarantee the observance of private agreements and awards. The Chérons are a sect of Hindus nearly resembling the Bhats in their manners and customs. They are carriers of heavy goods, such as grain and other articles, in which they are also dealers, and possess large droves of cattle for carriage. They are likewise engaged to protect travellers in the wild parts of the country, and take an oath to die by their own hands in the event of those who are under their protection being plundered; and the superstitious thieves of Hindustan are always overawed by this threat of the Chérons, whom they hold in great veneration.² The population of Hindustan contains other tribes or sects, too numerous and diversified to be described in detail, and differing, if not in language, at least in dialect, and in their manners, customs, and occupations. The Phasingars in the south of India, and the Thugs, are professional murderers; the latter are composed of men of all castes, even Brahmins, who, when murders are committed, are frequently the chief directors in the scene. Their practice is to decoy the traveller into the midst of their band, and then, drowning his cries by the noise of pretended revelry, to strangle him by suddenly throwing a noose round his neck, after which the body is cast into a grave previously dug for it. Another tribe, the Gwarriahs, who live by stealing women and children, are fast disappearing under the strict rule of the British. The Brinjarrees and Loodanahs, or carriers of grain, are a singular wandering race, who dwell in tents, and have no home; passing their whole time in transporting grain from one part of the country to another. They move about in large bodies with their wives, children, dogs, and loaded bullocks; and carry arms, with which they stoutly defend themselves against petty thieves. In war they are allowed to pass and repass quietly as neutrals between hostile armies, and to sell supplies of grain to either party. It was from the Brinjarrees that Lord Cornwallis received all the supplies for his army when he advanced against the capital of Mysore in 1799. The Oorians, a singular race, who inhabit Orissa, are dis-

¹ *Annals of Rajasthan*, vol. i. chap. 3.

² For a more full account of some of these tribes, see the article on GUJERAT, a province in which they abound.

Hindustan. tingued by their feminine appearance, so that they are often mistaken for women. They are timid, dissolute in their manners, and more practised in low cunning than any other people in the East, though they are said to be honest and industrious. The pastoral tribes, the Todawars or Toderies, and the Koties, inhabit the table-land of Mysore; the first a manly race in features, and of a proud and independent character, strongly resembling the ancient Romans; the second more diminutive, with darker complexions, and less expressive features. They are considered as the aborigines of these highlands. The Toderies are herdsmen, wandering from pasture to pasture, and they and the Koties always go bare-footed and bare-headed. The Nairs in Malabar form a singular caste, from their peculiar manners and customs. Pretending to be soldiers by birth, they disdain all industry; and are often seen parading up and down fully armed, each man with a firelock, and with at least one if not two sabres, which they more frequently use in secret assassination than in open war. Amongst the Nairs marriage is a mere form, and both sexes indulge in a promiscuous intercourse. The women are married before they are ten years of age; but the husband never cohabits with his wife. He allows her a suitable maintenance, whilst she lives with her brothers, and cohabits indiscriminately with any person of an equal or higher rank. Owing to this irregular intercourse, no Nair knows his own father; and every man considers his sister's children as his heirs.¹ The Nestorian Christians are numerous in the south of India, and are a peaceful and industrious race. The Roman Catholics, the descendants of the Portuguese and French, or converts to their faith, amount to 600,000, and are sunk in idolatry not much superior to that of the Hindus. The foreign races in India are the mercenary Arabs, who are brave soldiers, ready to fight on any side for good pay; and the Chinese, who are fast increasing in Calcutta, and engross, by their skill as artisans, the principal business in the city. Another race has sprung up in India since the country was occupied by the British, who are known by the various names of Europeans, Anglo-Indians, Indo-Britons, half-castes, and the like, but who have now assumed the appellation of East Indians. They are the descendants of Europeans, either British or others, by native mothers, legitimate and illegitimate. They are estimated to amount, in the province of Bengal, to about 20,000, including men, women, and children. Nearly two thirds of this number reside in Calcutta, and there are about 10,000 more in the presidencies of Madras and Bombay. They speak the English language, and follow all the European habits, and the Protestant religion. But as they are an intermediate caste between Hindu and Mahomedan, they are not subject to, nor are protected by, the English law, and may, like the natives, be arrested by any of the courts, fined, imprisoned, and corporally punished at the discretion of the judge, without the intervention of a jury; though, in point of fact, no such severities are ever practised, being prevented alike by the force of public opinion, by the sentiments and feelings of the British rulers of India, and also by the respectable conduct of this mixed caste. They have been, since the year 1791, excluded by express enactments from the civil and military service of the Company, and are only eligible to subordinate situations in public offices; though of late years this exclusion was only applied in its rigour to the immediate descendants of European and Indian parents, all others being eligible to civil and military offices. Prior to 1791, the East Indians were freely admitted into the army, and several of them attained to the rank of gene-

rels and colonels, and commanded large bodies of troops Hindustan. with efficiency and success. Notwithstanding the restrictive law, there are still examples of their admission into the Company's service. Those who are not engaged in the public service follow other professions. Some have acquired high reputation and large fortunes by medical practice. Others are employed as planters, schoolmasters, architects, printers, carvers and gilders, or engaged in commerce. Mr Grant's measure, passed in 1833, for regulating the Company's affairs, abolishes these unjust and illiberal distinctions, and renders every class, of whatever caste or religion, eligible to all offices civil and military.²

Such are some of the principal tribes who inhabit the low country of Central and Northern India, "whilst the mountains and woods, wherever they occur, show specimens of a race entirely different from all these, and in a state of society scarcely elevated above the savages of New Holland or New Zealand." It is finely observed by Sir John Malcolm in his history of Persia, that, in the conquest of a country, the rocks and the mountains often afford a last asylum to the brave and the free; and accordingly, many of the native tribes in Hindustan, flying from the destroying sword, have thus maintained for ages a savage independence, and all the distinct traces of an original race. The elevated tract which Bengal includes towards its western frontier, reaching from Rajamahall to Burdwan, is inhabited by several tribes of mountaineers, who are probably the aborigines of the country; and, from their features, language, civilization, and religion, are obviously of a different stock from those in the plains. Amongst the Puharrees, who inhabit this tract, the Hindu institution of castes is unknown; the Hindu deities are equally so; and they have no idols, being nearly in the condition of savages. They subsist by the chase, their arms are bows and arrows, and they are nearly naked. They formerly waged incessant war with the cultivators of the plains, whom they robbed and murdered, and were in their turn hunted by the Mahomedan zemindars like wild beasts. Having been kindly treated and conciliated by the British, they are so far reclaimed from their wild habits, that a battalion of sepoys has been raised from amongst them. The peculiar features of the rude tribes in the eastern hills of Bengal, and the adjacent plains, equally indicate a distinct origin. The Kookies, who live in the mountains to the north-east of the Chittagong district, have all the peculiar features of a Tartar countenance; the flat nose, the small eyes, and the broad round face. They are stout and muscular, though not tall; and they are hunters and warriors, armed with bows and arrows, clubs and spears. They live in the most inaccessible hills, in a state of constant warfare, and, like all savages, are cruel and vindictive.

The inhabitants of Hindustan rank much lower in the Religion. scale of civilization than the nations of Europe. They are far behind them in literature, science, and the arts, and in all the civil institutions of society; and their religion is that of a rude people, consisting in an endless detail of troublesome ceremonies, which are deeply interwoven with the whole system of life. The reason of man, in contemplating the wonders of creation, is directed by the light of nature to one great first cause, and in the structure of the universe are clearly seen the divine attributes of goodness, wisdom, and almighty power. Accordingly Brahm, or God, is declared, in many passages of the Vedas or sacred writings of the Hindus, to be the almighty, infinite, eternal, self-existent being, who sees all things, and is everywhere present; the creator and lord of the universe, its

¹ Buchanan's *Journey from Madras*, vol. ii. p. 412.

² Minutes of Evidence before Select Committee on the Affairs of the East India Company, on a Petition of certain Christian Inhabitants of Calcutta, &c. presented to the House of Commons on the 4th May last; 21st June 1831.

Hindustan. preserver and its destroyer, who can neither be described nor adequately conceived by the limited faculties of man. But with these elementary conceptions of the divine majesty other grosser ideas are combined, and a system of polytheism, accompanied by the most extravagant and obscene fables, and all the disgusting, cruel, and blood-thirsty rites of an abominable idolatry. Whilst Brahm, the Supreme Being, is supposed to remain in holy obscurity, he has distributed respectively to three other deities, Brahma, Vishnu, and Siva, the power of creating, preserving, and destroying the world. But it does not appear that these deities are strictly confined to their separate functions; Vishnu, the preserver, frequently employing himself in acts of destruction; and Siva, on the other hand, in acts of beneficence. In short, the Hindu creed presents no clear nor determinate ideas. All is vague, inaccurate, and confused. Brahma, the creator, is represented as a golden-coloured figure, with four heads and four arms. Vishnu, the preserver, is represented of a black or blue colour, with four arms, and a club to punish the wicked. The emblems under which he is represented refer to his vindictive character. He has three eyes, to denote the three divisions of time past, present, and future. A crescent in his forehead refers to the measuring of time by the lunar revolutions, as a serpent denotes it by years; and the necklace of skulls which he wears, the extinction of mankind in successive generations. The great ends of his providence are brought about by various incarnations of the Hindu deity. Of these visible appearances, denominated avatars in the Hindu mythology, there are ten, of which nine have already taken place; and although the Hindu account of what took place at these times is a tissue of absurdity, extravagance, and indecency, yet we may trace, under a mass of fable, the Scripture account of the deluge, with various other points of the Christian theology. But the history of the creation from a seed deposited in the waters, which became an egg, from which Brahma the creator was born, is in the highest degree absurd and profane. At the tenth avatar, which is yet to come, Vishnu, as is foretold, will appear on a white horse, with a scimitar blazing like a comet, for the everlasting punishment of the wicked who shall then be on the earth. Each earthly incarnation of the divinity gives rise to a new deity; and there are, besides, innumerable other minor deities, amounting, it is said, to 330 millions. All the great elements of nature are deified by the extravagant superstition of the Hindus; also the firmament of heaven, the sun, moon, and stars; every river, fountain, and stream, is either a deity in itself or has a divinity presiding over it, nothing being done without some supernatural agency; and there are, besides, innumerable myriads of demigods, to whose honour idols are erected and worshipped by all classes with much apparent devotion. Stocks and stones, or a lump of clay smeared over with a little red paint, are converted into a god, and revered, by the ignorant Hindu. Any figure, either of brute or man, or any monstrous combination of both, with a multiplicity of heads and hands, mark a Brahminical place of worship. In the lapse of ages, great changes have been introduced into the religious practices of the Hindus; and sectaries have arisen amongst them, each with peculiar objects of adoration and modes of worship. Five great sects worship exclusively a single deity; one recognises the five divinities that are respectively revered by the other sects, but they select one object for daily adoration, whilst they perform only occasional rites to the other deities. The Vedas, or the Hindu Scriptures, were revealed before the appearance of Buddha, the ninth incarnation of Vishnu, which is supposed to have taken place in the year 1014 before the Christian era. He appears to have borrowed his theology from the system of Capila, in which the unlawfulness of killing animals is inculcated as an essential point. But

the overthrow of the Buddhists did not revive the religious **Hindustan.** system inculcated in the Vedas. The doctrines taught in these sacred books are now mostly obsolete, and in their stead new forms and ceremonies have been instituted, and new orders of devotees. In particular the goddess Kali, the consort of Siva, who delights in blood, has been propitiated by the sacrifice of animals; and the worship of Rama and Krishna, incarnations of Vishnu, and of Siva the destroyer, appears to have been introduced since the persecution of the Buddhists and Jains.

The worshippers of Buddha, though they believe in the incarnation of Vishnu, are regarded as heretical by the Hindus, and have been compelled, by persecution, to fly to other countries. They have now propagated their faith over the greater part of Eastern India, in China, and as far as Japan; also in Thibet and Ceylon. The Jains are another sect of Hindus, who acknowledge only as subordinate deities some, if not all, of the gods of the Brahmins, and the prevailing sects; and assign the highest place to certain deified saints, who, according to their creed, have risen to the dignity of superior gods. They neither address prayers nor perform sacrifices to the sun or the fire; and they reject the authority of the Vedas, as do also the Buddhists. The presence of umbrella-covered pyramids, or semi-globes, and of plain human figures sitting cross-legged, or standing in an attitude of contemplation, point out the temple or excavation of a Buddhist. The twenty-four saintly figures, without the pyramid, indicate a Jain temple.

The sacred books of the Hindus, though they inculcate generally all the moral duties of justice, mercy, and benevolence, yet seem, like every other system of false religion, to give the first place to the ceremonial law; and accordingly the devotion of the Hindus consists in mere outward observances, and is not inconsistent with the most scandalous crimes. Under the Christian system, there can be no piety to God without benevolence to man. But the troublesome ceremonies of the Hindu religion encroach, not only on all moral duties, but on the whole business of life; and confer such a stock of atoning merit that they seem to supersede the weightier matters of the law. The observances which are imposed upon a Brahmin commence when he rises in the morning, and consist in divers ablutions and prayers, in the worship of the rising sun, in the inaudible recitation of the gayatri, or the holiest text of the Vedas, in holy meditation, and in other ceremonies. He has then to perform the five sacraments, which consist in teaching and studying the scriptures, which is the sacrament of the Veda; in offering cakes and water, which is the sacrament of the manes; in an oblation of fire, the sacrament of the deities; in giving rice and other food to living creatures, which is the sacrament of spirits; and in receiving guests with honour, which is the sacrament of men. The whole day would not suffice for the punctual performance of these ceremonies; and they are of necessity abridged, to give time for the proper business of life. In almost all the religious traditions of the world we find traces of the Scripture revelation, however corrupted; and the Hindu system seems to have borrowed, and to have greatly extended, the typical impurities of the Mosaic law. The rules on this subject, pointing out the causes of defilement, and the modes of purification, are numerous, many of them to the last degree absurd and troublesome. The death or the birth of a child renders all the kindred unclean. Any one who touches a dead body, a new-born child, an outcast, &c. is unclean; or a Brahmin who has touched a human bone. The natural functions of the body give occasion to many minute and disgusting regulations; and the modes of purification are equally strange and ridiculous. Of these, bathing is the most rational; the other modes are by stroking a cow, looking at the sun, or having the mouth sprinkled with water. He who is bitten by any animal frequenting

Hindustan. a town, or by a mare, a camel, or a bear, is unclean; and he is purified by stopping his breath during one inaudible repetition of the gayatri. Inanimate substances may also be unclean, and the various modes of purifying them rival in absurdity the other extravagances of the Hindu code of religious observances.

The expiation of sin by voluntary penance is another favourite doctrine of the Brahmins, by which they contrive to awe superstitious minds into subjection; and in their estimate of offences, with a view to suitable penances, they subvert all moral distinctions. "Acts naturally indifferent," says the author of *Indian Recreations*, "are put on the same footing with immoralities; eating certain articles of food, drinking certain liquors, or touching certain objects, are declared forfeitures, and are expiated by penance as immoral conduct. Forgetting texts of scripture is classed with perjury; eating things forbidden, with killing a friend; incest and adultery are compared to slaying a bull or a cow; drinking forbidden liquor, to killing a Brahmin. In several instances, actions highly meritorious according to our notions, are put on the same footing with a conduct implying great infamy. Working in mines of any sort, engaging in dykes, bridges, or other great mechanical works, is classed with subsisting by the harlotry of a wife, and preparing charms to destroy the innocent."¹ To these artificial offences, penances are either affixed by the Brahmins, or are voluntarily undertaken by their pious votaries; and these generally consist in fasts, mortifications, watchings, and other bodily privations. "If a Brahmin," says Menu, "have killed a man of the sacerdotal class without malice, he must make a hut in a forest, and dwell in it twelve whole years, subsisting on alms, for the purification of his soul. If the slayer be a king, he may perform sacrifices, with presents of great value; if a person of wealth has committed this offence, he may give all his property to some Brahmin learned in the Veda." In some cases the penances consist in eating what is filthy and disgusting. If a Brahmin kill by design a cat, or an ichneumon, the bird chisha, or a frog, a dog, a lizard, an owl, or a crow, he must perform the ordinary penance required for the death of a Sudra, one of the lowest caste, who are thus no more valued than a cat or a frog. A particular class of devotees, namely, the Fakirs, signalize their piety by enduring the severest tortures, and with a constancy worthy of a better cause. Bishop Heber describes, with his usual force, the appearance of these eastern monks as they have entered the holy city of Benares. "Fakirs' houses," he observes, "as they are called, occur at every turn, adorned with idols, and sending forth an unceasing tinkling and strumming of vinas, byyals, and other discordant instruments; while religious mendicants of every Hindu sect, offering every conceivable deformity which chalk, cow-dung, disease, matted locks, distorted limbs, and disgusting and hideous attitudes of penance, can show, literally line the principal streets on both sides. Here," he adds, "I saw repeated instances of that penance of which I heard much in Europe, of men with their legs and arms voluntarily distorted by keeping them in one position, and their hands clenched till the nails grew out at the backs. Their pitiful exclamations as we passed, '*Agha Sahib, Topee Sahib,*' the usual names in Hindustan for an European, '*khana ke waste kooch cheez do,*' give me something to eat, soon drew from me the few pence I had; but it was a drop of water in the ocean; and the importunities of the rest, as we advanced into the city, were almost drowned in the hubbub which surrounded us."² The tortures which these fanatics endure exceed all belief. A penitent who went through the ceremony of sitting be-

tween five fires, is described by Fraser, who witnessed Hindustan the penance at a public festival. Being seated on a quadrangular stage, after the sun began to have considerable power, he stood on one leg gazing stedfastly at its scorching beams, whilst fires large enough, says the traveller, to roast an ox were burning around him, the penitent counting his beads, and occasionally adding fuel to the flames. He stood upright on his head in the midst of these fires for three hours; and then seating himself with his legs across, he remained till the end of the day exposed to the scorching heat of both the sun and the fires.³ Other cruel and bloody rites are contrived by those devotees, the worshippers of Siva or his consort the goddess Kali. At one of the festivals in honour of this goddess, Bishop Heber, who was present, relates, that one of these self-tormentors had hooks thrust through the muscles of his sides, which he endured without shrinking, and a broad bandage being fastened round his waist to prevent the hooks from being torn through the flesh by the weight of his body, he was fastened to a long pole, and, by means of another pole fixed in the ground, he was swung aloft and whirled round in the air; on a motion being made to take him down, he made signs for them to proceed, a mark of constancy received with shouts of applause by the ignorant multitude. Other devotees were seen going about with small spears thrust through their tongues and arms, or with hot irons pressed against their sides. Bishop Heber saw another of these penitents who was actually half roasting himself by a fire which he had kindled in a hole dug in the ground; another was seen hopping on one foot, having made a vow never to use the other, which was now contracted and shrunk up; and a third had held his hands above his head so long that he had lost the power of bringing them down to his sides. Some are seen buried up to the neck in the ground, or even deeper, with only a small hole for breathing. Some lie on beds of iron spikes, or tear their flesh with whips, or chain themselves for life to the foot of a tree, or remain in a standing posture for years, till their legs swell, and break out into ulcers, and become at last too weak to support them; others exhaust their bodily strength with long fasting, or gaze on the blazing sun, till their eyesight is extinguished. These devotees subsist entirely by charity; and Dr Buchanan mentions a class of them in the south of India, who wander about with bells tied to their legs and arms, in order to give notice of their presence as they approach the villages.⁴ They are always naked, and filthy in the extreme, being covered with cow-dung and chalk; and for the tortures which they endure in public they indemnify themselves in private by the utmost license of sensual indulgence.⁵ Amongst other observances, the Hindus have always been much given to religious pilgrimages; and their holy places have been generally established near the sea, the sources and junctions of rivers, which are held in peculiar veneration, the tops of remarkable hills, hot springs, caves, waterfalls, or any other place of difficult or dangerous access. A pilgrimage to Gangoutri, near the sources of the Ganges, is accounted the great achievement of Hindu piety. To the waters of this river the superstitious Hindu ascribes peculiar sanctity, and devoutly worships it throughout its whole course. But there are particular spots more sacred than others; and so great is the resort of pilgrims, and such their ardour to wash in the sacred stream, that numbers, in the crush and tumult, are hurried into the water and drowned, or trodden to death in the crowd.

It is not doubted that, at a period not very remote, the bloody deities of the Hindus were propitiated with human sacrifices, and some of the rites still in use amongst them

¹ See Tennant's *Indian Recreations*, vol. i. p. 155.

² Heber, vol. i. p. 373.

³ Mill's *History of British India*, vol. i. p. 353.

⁴ *Journey from Madras, through Mysore, Canara, and Malabar*, vol. i. p. 238.

⁵ Martin, vol. i. p. 291.

Hindustan. confirm this suspicion. The Brahmins, in resisting any demand which they conceive to be oppressive, resort to a contrivance, in which a human victim is really sacrificed. They erect a circular pile of wood, on the top of which they place a cow or an old woman; and if the demand is insisted on, they set fire to the pile, and consume the sacrifice, which is supposed to entail on the oppressor the deepest guilt. Bishop Heber gives, in his narrative, an example of the sacrifice of an old woman, who, in a quarrel which her husband had with his neighbour respecting some land, was thrust into a Mahbout's hut, and there burned, in order that her spirit might haunt the spot, and entail a curse upon the soil. Children were also formerly sacrificed, by throwing them to the sacred sharks of the Ganges, till the practice was forbidden by the British government; and a voluntary sacrifice of themselves by individuals, in honour of the gods, is still reckoned meritorious. At the festival of Juggernaut, the idol is placed on a ponderous machine or chariot, and dragged forward by a crowd of devotees and priests, when numbers of the people, even fathers and mothers, with their children in their arms, throwing themselves in the way of the chariot, and being crushed to death under its ponderous wheels, amidst the fanatical cries of the multitude, are supposed to be conveyed immediately to heaven. Numerous victims of both sexes drown themselves annually at the junction of the sacred streams; many strike off their own heads as a sacrifice to the Ganges, whilst others expiate their sins by casting themselves into the avenging flames. This act of devotion is accompanied by atrocities that are truly shocking, the devotee previously laying open his bowels with the stroke of a sabre, tearing out his liver and giving it to a bystander, conversing all the time with apparent indifference.¹ Many other enormities are practised at the festivals in honour of their gods, which it would be endless and disgusting to detail. The custom of a widow burning herself on the funeral pile of her husband is a noted rite of the Hindu religion, by which she is supposed to expiate all her husband's crimes, however great, and to secure for herself the joys of paradise. It is most frequent in Bengal and near Benares, and is much encouraged by the Brahmins. The Hindus in this, as in many other instances, evince a singular indifference about their own lives; which also appears in the frequent instances of suicide amongst them. "Men," says Heber, "and still more women, throw themselves down wells, or drink poison, for apparently the slightest reasons, generally out of some quarrel, and in order that their blood may be at their enemy's door." Obscenities mingle with these bloody rites, and the most indecent figures are portrayed on the chariots used at the temples, many of them large and richly carved. "These," says Dr Buchanan, "representing the amours of the god Krishna, are the most indecent that I have ever seen."² Equally indecent representations are carved on the sacred cars fixed at the temples, in which the musicians and dancing girls are all prostitutes to the Brahmins, and turned out to starve when they grow old, unless they have a handsome daughter to support them from the wages of iniquity. The state of morals among the Hindus is such as might be expected from a religion so impure, and from the gross emblems which are used on sacred occasions; their writings and their conversation are shocking to European ears; and even the Hindu women hear without a blush and join in language the most gross and disgusting. They are sensual in all their ideas, and pursue the intercourse of the sexes with little more discrimination than the brute creation. Fidelity to marriage vows is scarcely known amongst them, at least amongst the men.

A superstitious tenderness for the brute creation is a Hindustan. peculiar tenet of the Hindu creed, which prohibits the use of animal food excepting at the great festivals, when the sacrifices of beasts propitiate the bloody deities, and serve the natives for a feast.³ But the same abstinence from animal food is not general throughout Hindustan. In the north of India it has already been mentioned that it is freely used by the inhabitants; and, according to Dr Buchanan, there are castes in the south of India who eat sheep, goats, hogs, fowls, and fish; though there are others who religiously abstain from these, and from all spirituous liquors.⁴ Several animals, as the cow and the monkey, are objects of veneration. Bishop Heber, so often quoted, mentions, that on entering the holy city of Benares, "the sacred bulls devoted to Siva, of every age, tame and familiar as mastiffs, walk lazily up and down the narrow streets, or are seen lying across them, and hardly to be kicked up; any blows, indeed, given them must be of the gentlest kind, or woe be to the profane wretch who braves the prejudices of a fanatic population, in order to make way for the tonjon. Monkies, sacred to Hunimaum, the divine ape, who conquered Ceylon for Rama, are, in some parts of the town, equally numerous, clinging to all the roofs and little projections of the temples, putting their impertinent heads and hands into every fruiterer's or confectioner's shop, and snatching the food from the children at their meals."⁵ To such a length is this superstition carried, that they have established an hospital for sick and infirm beasts, and for fleas, lice, and insects, though it does not appear, as reported by some travellers, that they feed these loathsome creatures on the flesh of beggars hired to lodge in the hospital for that purpose. An hospital for animals is to be seen at Broach in Gujerat, which has considerable endowments in land, and in which are monkies, peacocks, horses, dogs, cats, and little boxes filled with fleas and lice. This hospital was described to Bishop Heber by the British commercial agent resident at Broach. The funds, however, are said to be alienated by the avaricious Brahmins, and the animals allowed to starve. With all this veneration for animals, they are nowhere more cruelly treated. They are overworked and abused in a manner shocking to a European. "They treat their draft horses," says Bishop Heber, "with a degree of barbarous severity which would turn an English hackney coachman sick;" nor do they show any greater sympathy for human beings, who are allowed to perish before their eyes from hunger or disease. Lepers, according to their base and irrational superstition, are treated as objects of the divine wrath; they are cruelly neglected, and regarded with abhorrence rather than with sympathy.

The transmigration of souls is another favourite tenet of the Brahmin superstition. The souls of good men migrate in the next world into hermits, religious mendicants, Brahmins, demi-gods, genii, or other celebrated intelligences; and the best ascend to the condition of Brahma with four faces. The next gradation allotted to souls filled with passion is into men and not into deities, into cudgel players, boxers, wrestlers, actors, or those of a higher class into the bodies of kings, and the highest become genii, attendants on the superior gods; whilst souls filled with darkness are degraded into the lower animals, such as worms, reptiles, cattle, &c. or into elephants, horses, Sudras (the lowest caste), or into the still more degraded class of men of no caste, or into lions, tigers, &c.; to the highest are allotted the forms of dancers, singers, &c. birds, giants, blood-thirsty savages. Particu-

¹ Tennant, vol. ii. p. 250.

² Mill's *History of British India*, vol. i. p. 368.

³ *Journey from Madras, through Mysore, Canara, and Malabar*, vol. ii. p. 237.

VOL. XI.

⁴ *Journey from Madras, &c.* vol. i. p. 262.

⁵ *Ibid.* vol. i. p. 248.

⁶ Heber's *Narrative*, &c. vol. i. p. 373.

Hindustan. lar migrations are assigned as the punishment of certain enormities; but it is useless to pursue the system further into its absurd and disgusting details.

Manners. The religion of Hindustan is so closely interwoven with its customs, manners, and laws, that they can scarcely be described separately. The division of a Hindu community into castes is an institution, not of policy, but of religion, which embraces the whole detail and intercourse of life. There are four original or pure castes, namely, 1st, the Brahmins, or priests; 2d, the Cshatriyas, or military caste; 3d, the Vaisyas, or husbandmen; and, 4th, the Sudras, or labourers. Of these the Brahmins are declared to hold the first rank, and to be the lords of all the other classes. A want of due reverence to them, especially by the lowest or the Sudra class, is accounted one of the most atrocious crimes. The laws and manners equally concur to maintain the honour, and all the substantial privileges, of this sacred order. They are exempted from taxation, and from the sanguinary laws which affect the other classes. Neither the life nor property of a Brahmin can be touched, even though he commit the most atrocious crimes; and the whole scope of the Hindu religion is to heap gifts and wealth upon them. "Every offence," says Orme, "is capable of being expiated by largesses to the Brahmins, prescribed by themselves, according to their own measures of avarice and sensuality."¹ The duties of the Brahmins are to meditate on divine things, to read the Vedas, to instruct the young Brahmins, and to perform sacrifices and other religious acts. The Cshatriyas, or the military rank, is next in order to that of the Brahmins. Their duty is to bear arms in defence of the state, and they rank as high above the lower orders as the Brahmins do above them. The Vaisyas, the third caste of Hindus, tend cattle, or engage in trade and agriculture. They rank only above the Sudras, from whom, however, they receive the same deference and submission which they give to the higher castes. To the Sudra, or the lowest class, are allotted all the meanest and most servile duties; they are regarded with abhorrence by the other tribes, to whom religion prescribes their most abject submission, as well as every other species of degradation. They are in a manner excluded from the privileges of the social state. They pay a higher rate of interest for money than any of the other classes, they are more cruelly punished for crimes committed against them, whilst an injury to a degraded Sudra is a light and venial offence. They are held to be in a state of slavery, they cannot possess property, and at any time a Brahmin may seize the goods of his Sudra slave. So degraded are they, that under this gloomy, unsocial superstition, a Brahmin cannot lawfully read the Veda in presence of any of them, nor give them spiritual counsel or instruction, under pain of sinking with them into hell. To each of these classes, into which society is divided, are assigned, under the severest penalties, particular and hereditary employments. But the rigid severity of this law is softened by the following exceptions. A Brahmin who cannot find employment in his own spiritual line, may descend to the exercise of military duties, or to tillage and attendance on cattle, or to traffic, only avoiding certain commodities. In like manner, a Cshatriya in distress may have recourse to all inferior employments, though not to the higher duties of the Brahmins. The practice of medicine and other learned professions, of painting and other arts, common labour, menial service, begging, or serving, may be resorted to upon the plea of necessity. A Vaisya may de-

scend to the servile work of a Sudra; and a Sudra may *Hindustan.* subsist by handicrafts, as joinery, masonry, painting, and writing, by which he may serve the higher classes; or by trade or husbandry. The loss of caste is one of the most serious calamities which can befall a Hindu, and may in fact be compared to the spiritual anathemas of the Catholic church during the dark ages of Europe. If the loss of caste were the penalty of immorality, the fear of it would impose a salutary restraint. But this is far from being the case. The most abandoned Brahmin retains his rank, notwithstanding his crimes; but he will entirely forfeit it and lose all countenance in society by touching impure food, or by some such petty delinquency. To sit down at a meal with one of an inferior caste, would be deemed a monstrous pollution; and a naked Hindu would think himself defiled by the presence of the first monarch of Europe at any of his meals. "While dinner is preparing," says Tennant, "and during eating, a small circle is drawn round the company, which an European, if he pass, infallibly defiles the meal; it is thrown to the dogs, and other victuals provided, though a single one be all the treasure of the family."²

Such may be considered as in theory the structure of a Hindu community. But since, in the progress of society, this strict division into classes with distinct employments could not long be maintained, we accordingly find that, by illicit connexions, the pure races are intermixed, and children born who, being of no caste, are therefore impure, and objects of execration to all the other tribes. This impure race, denominated the Burren Sunker, and classified into distinct tribes, have become artisans and handicraftsmen of every description. From the intermixture of these various races innumerable mixed tribes have sprung, and the pure blood of the four original tribes is scarcely to be found; so that Mr Rickards, in his accurate account of Indian manners, says, "I have never met with a person who could prove himself a genuine Cshatriya, Vaisya, or Sudra; whilst of those who pretend to be of pure descent, Brahmins and other respectable and intelligent Hindus have assured me that they have no right to the distinction; that the genuine tribes above named are extinct, and their descendants in this generation all of mixed blood. If, however, any do now exist, they must be too thinly scattered to affect the general interests of society by their privileges or numbers. "A real Cshatriya prince," he adds, "is not to be found in these days; all the greater princes of India, excepting the peshwa, a Brahmin, are base-born."³ Nor, amidst this confusion of ranks, has it been possible to adhere to the strict allotment of certain employments to particular castes. The Brahmins no doubt still form a distinct order; their privileges are willingly conceded to them by the superstitious multitude, and the inferior castes have never encroached on their holy functions. But those of the other castes have been confounded. War has not been the exclusive employment of the Cshatriya caste; for the Indian armies are recruited from all denominations and castes. Nor have the Vaisya and the Sudra castes been more successful in the monopoly of their employments; seeing that all the various castes follow their allotted duties, and fill every branch of agriculture, commerce, handicraft, and menial service.⁴ But the institution of castes, though it has not been strictly acted upon, being at variance with the fixed order of human society, has nevertheless deeply affected the aspect and structure of the Hindu communities; and whilst it exalts the order of priests, it degrades the lower classes

¹ Orme *On the Government and People of Hindustan*, p. 433.

² See *Indian Recreations*, vol. i. p. 121.

³ *India, or Facts submitted to illustrate the Character and Condition of the Native Inhabitants, &c.* By R. Rickards, Esq. vol. i. p. 29.

⁴ *Ibid.* p. 30.

Hindustan to the level of the brutes. It is the source of cruel and anti-social prejudices, entirely opposite to those Christian feelings of benevolence by which man is bound to his fellow men; and by which the different orders of society, instead of being harshly separated, are softened and blended, as in the communities of Europe, into one harmonious whole.

Besides these degraded castes, whose condition is little better than that of slaves, numbers of unfortunate persons are reduced to actual slavery throughout India, especially in the southern provinces, and in the Mahratta states. In Mysore, Coorg, Cochin, and Travancore, slavery prevails. All the jaghiredars, zemindars, principal Brahmins, and talookdars employ domestic slaves in their establishment; and in every Mahratta household of consequence they are considered as indispensable. They are also employed in the labours of the field, in the cultivation of rice, and are in the lowest state of degradation, ill-fed and worse clothed, and most wretched in their appearance. They are often extremely ill treated, and may be flogged at the discretion of the master, imprisoned, or put in the stocks; and there is hardly a criminal calendar which does not contain cases of wounding or even murdering slaves. Many are born slaves; some are kidnapped by men-stealers of a particular class, or are made prisoners in battle; others are sold into slavery in times of famine by their parents. Numbers are imported from the Persian Gulf, the Red Sea, and the coasts of Africa; some bind themselves for a time, or for life, in discharge of a debt. The population of Canara, amounting to 600,000, and in 1827 to a million, according to the estimate of Mr Harris, the principal collector, included 80,000 slaves. In Malabar there were, in 1806, 96,386 slaves in a population of 700,000, and out of 1,003,466 in 1827, 20,000 were prisoners of war or their descendants. In the report of the commissioners of Bengal and Bombay, of which Mr Jonathan Duncan was president, it is stated, that on the first settlement of Malabar in 1793, the degraded castes were in a state of villenage, and attached to the soil. It was the practice of the British to sell these slaves off the estate in default of the public dues, and in many cases to separate parents from children, wives from husbands, and thus to rend asunder the ties of kindred. The sale of slaves in the southern

Mahratta states has been prohibited by a regulation of *Hindustan*. the governor-general and council; and in 1819 the practice of selling slaves for arrears of rent was ordered to be discontinued by the board of revenue. Children are sometimes kidnapped and sold for slaves; and the superintendent of police at Madras says, "I succeeded in 1818 in restoring several such children to their parents amongst the lowest and poorest of the Hindus; and their anxiety to recover infants whom they in all probability found it very difficult to support, would have done honour to the highest classes of European society."¹

The Hindus are by no means a moral people. Notwithstanding the gentleness and feminine softness of their manners and address, they frequently commit the most revolting acts of cruelty. The practice of murdering children for the sake of the silver ornaments in which, by the vanity of their parents, they are attired, is common among them; and the gang-robbers of India are noted for the horrible tortures which they inflict on their unhappy victims, in their eager search after their hidden treasures. "Pestilence, or beasts of prey," says Dr Buchanan, "are gentle in comparison of Hindu robbers." According to the observation of Orme, the politics of Hindustan would afford in a century more frequent examples of sanguinary cruelty than the whole history of Europe since the reign of Charlemagne. "How many princes," observes this writer, "have been stabbed in full durbar" (in open court). "How many have been poisoned in their beds. Chiefs of armies circumvented and cut off at conferences in the field. Favourite courtiers strangled, without previous notice of their crime, or while they thought themselves on the eve of destroying their masters."² Murders amongst the Hindus, even by poison, excite no feeling of deep abhorrence, as among the nations of Europe; and the cold-blooded villany of the Hindu is often remarkable. Mr Holwell mentions, that when he sat as judge at Calcutta, he had heard it stated in defence of the most atrocious murders, that it was the Cali age, when men were destined to be wicked.³ The Hindus, like all the other Asiatics, are great masters of dissimulation; they are cunning and treacherous, addicted to falsehood to a degree that can scarcely be conceived by a more refined and moral people. Perjury in courts of justice is universal, amongst high as well as low, and amongst both the Hindus and Mussulmans, without

¹ See Papers relative to slavery in India: Return to the House of Commons, 6th March 1834; Evidence of Joseph Fenn, nine years a missionary in Travancore; Answers to Questions on Slavery, circulated by the Commissioners for the affairs of India; Evidence of T. H. Baber, Esq. thirty-two years resident in India; of the Honourable J. Harris, principal collector in Canara; and of Mr Warden, collector in Malabar. The evidence of T. H. Baber discloses a regular and shameful traffic in slaves, carried on by Mr Brown, a servant of the Company, and under the authority of the Bombay government. "How or whence," he observes, "this oppressive and cruel practice, not only of selling slaves off the estate where born and bred, but actually of separating husbands and wives, parents and children, and thus severing all the nearest and dearest associations and ties of our common nature, originated, it would be difficult to say; but I have no doubt, and never had in my own mind, that it has derived support, if not its origin, from the impolitic measure in 1798, of giving authority to the late Mr Murdoch Brown, while overseer of the Company's plantations in Malabar, from the difficulties he experienced, even with 'the assistance of the tchisdar' (the head native authority) and 'his peons' (armed persons with badges of office), to procure workmen, and 'of the price of labour being more than he was authorized to give,' to purchase indiscriminately as many slaves as he might require to enable him to carry on the works of that plantation; and of actually issuing orders to the European, as well as to the native local authorities, to assist him, and even to restore slaves who had run away and returned to their homes (without any orders to inquire the reason of their absconding), and who, as has been actually ascertained from the surviving slaves themselves, had been actually kidnapped by the doragha (head police officer), and sent up to North Malabar, to Mr Brown, which person had continued up to 1811, or for a period of twelve years, under this alleged authority, granted by the Bombay government, to import slaves and free-born children from Travancore, when, by the merest accident, this nefarious traffic came to my knowledge, and which, after a considerable opposition on the part of the provincial court of circuit, I succeeded in putting a stop to, after having restored to liberty and their country 123 persons who had been stolen, of whom 71 were actually found in Mr Brown's possession." Mr Brown's agent, Aasen Ally, acknowledged, that during the time he was at Alepp, at Travancore, in 1810, no less than 400 children had been transported to Malabar. The advocate-general's report alludes to "Mr Baber's perseverance in restoring the kidnapped children, in spite of very extraordinary opposition," and to the "extraordinary support Mr Brown appears to have received in these dealings in stolen children." (Fol. 788.) The still more objectionable practice of realizing the public dues by the seizure and sale of slaves off the land, must have confirmed proprietors in their idea of accounting the slaves their property. Mr Vaughan, collector, Malabar, in a letter dated 20th of July 1819, argues in favour of this inhuman practice, saying, "that the partial measure of declaring them not liable to be sold for arrears of revenue, will be a drop in the ocean; though, why government should give up the right every proprietor enjoys, is a question worthy of consideration." Par. 3, 4, 5, &c. Highest class slaves sold for 250 gold fananas, L.6. 5s.; average price, L.3. 6s.

² Orme's *Historical Fragments of the Mogul Empire*, p. 340.

³ Mill, vol. i. p. 407.

Hindustan. the least remorse or shame. The Europeans in the office of judges in India complain of being perplexed by a host of perjurers on each side, swearing in the teeth of one another. They are acute dissemblers in all affairs of interest, and are the sharpest buyers and sellers in the world, maintaining through all their bargains a degree of calmness which no art can penetrate.¹ A want of sympathy with the sufferings of his fellow-creatures is another trait of the Hindu character, and a sure index to the low state of refinement amongst them. They treat their sick and dying with indifference, and in many cases with shocking inhumanity. The sick whose life is despaired of are carried to the banks of the Ganges, and their mouth, nose, and ears are closely stopped up with mud; water is then poured upon them from large vessels, and thus, amidst the agonies of disease and of suffocation, life terminates. The corpse is then burned, if the survivors can pay the expense, and the relatives retire with every appearance of insensibility.² The effeminacy of their persons, and their timidity, prevent them from fighting or boxing in their quarrels. But this forbearance seems to proceed from no want of malignity or passion, as, in the event of any misunderstanding between two persons meeting accidentally in the street, they upbraid each other with the foulest epithets, accompanied by the utmost violence of gesticulation.

Mr Rickards, in his valuable work upon India, seems to imagine that European writers have exaggerated the vices of the Hindus, and he exhibits them in a more favourable light. "Having lived," he observes, "twenty-three years in India, and passed much of that time in intimate intercourse with various natives, I have a different opinion of their character to that given in several printed works. I have constantly seen, in their acts and conduct, the practice of the most amiable virtues. I have experienced from many the most grateful attachment. I believe them capable of all the qualities that adorn the human mind; and though I allow many of their imputed faults (where is the individual or nation without them?) I must still ascribe these faults more to the despotisms under which they have so long groaned, and which unhappily we have but slenderly alleviated, than to natural depravity of disposition, or to any institutions peculiar to themselves."³ No writer ascribes to the Hindus any greater natural depravity than other nations. But certainly their peculiar religion, its indecent and bloody rites, and the laws and usages founded on it, more especially the institution of castes, tend to extinguish in the breast all humane, enlightened, or moral feelings; and though, even amongst the Hindus, exceptions may be found, and the occasional practice of amiable virtues, yet the crimes which are proved to be committed openly and without shame or remorse sufficiently attest the want of morality, intelligence, and every humane and social feeling amongst them, and seem to place them in this respect entirely on a level with the other Asiatic nations. Ignorance is the parent of cruelty and vice, and with the progress of knowledge and of civil institutions certain crimes entirely disappear; and hence their existence amongst the Hindus bespeaks not so much any innate or peculiar depravity, as a low state of civilization, and a state of thralldom to a base superstition and to the dominion of priests, under which the social virtues are blighted in the bud, and selfishness and vice spring up in the congenial soil.

In every nation the condition of the female sex affords a sure index to the state of manners and the progress of civilization. Amongst savages, women are ill treated because they are weak and helpless, and there is no moral restraint on the tyranny of the men. In Hindustan, as over

all the East, where polygamy prevails, they are a degraded Hindustan. caste, shut up in the harem or the seraglio, and not, as in Europe, the seat of a purer faith and more refined system of manners, the friends, the advisers, and equal companions, of their husbands. And both the laws and manners of the East lead to this unhappy effect. Whilst marriage is enjoined as a religious duty, not to be neglected except for the higher duty of becoming a devotee, the character of women is described in the Hindu books of law as stained with almost every vice. Pride, anger, envy, violence, deceit, falsehood, immoderate desires, infidelity to their husbands, and idleness, are pointed out as their ruling passions; and the treatment they meet with corresponds with those ideas. They are wholly uneducated, excluded from the sacred books, and from all knowledge of expiatory texts, and from any share in the paternal property; and they are held unworthy to eat with their husbands. They are the slaves of their domestic tyrants, and often receive the most barbarous treatment, being beaten and otherwise ill used; but they are not allowed to leave them, whilst the husband, on the other hand, may divorce his wife upon any plausible pretence. Such is the condition of women by the laws of Hindustan, which, we have no reason to believe, are softened in domestic life. Certain it is, that women, as long as they are uneducated, will be in a degraded state. It is only when they cultivate their minds that they can mix with advantage in society, and that, respecting themselves, and respected by others, they can acquire that ascendancy to which they are entitled, and give, by the delicacy of their manners, that tone and polish to society which it cannot receive from the other sex.

The ceremonial of marriage is conducted amongst the Hindus with great solemnity and expense. The parties, who are of equal rank, and any other alliance would be accounted infamous, are betrothed during their infancy by their parents, but on a full consideration of their respective rank, skilful genealogists being consulted previously on this important point. These preliminaries being settled, the transaction terminates with an elegant feast; and when the wife comes of age she is conducted to her husband's home, with all due ceremony, and a concluding entertainment; another set of observances take place when she becomes pregnant, when she passes her seventh month, and when she is safely delivered. These festivals amongst the rich are extremely expensive.

The Hindus are ignorant and illiterate. The children of the poor seem to be mostly uneducated. Those in a higher station are taught by the Brahmins to read and write, and to cast accounts, the calculations being performed by pebbles or small shells. The pupil first begins to write upon the sand with his finger, and he afterwards uses palm leaves. After being thus initiated in the rudiments of literature, he enters on the course of his professional study, in which he has no choice, every one following the profession of his father. A student is instructed chiefly in the Vedas, and in the ceremonial of his religion; and his course of discipline in the three Vedas may be continued for thirty-six years, in the house of his preceptor, or for a half or quarter of that time, until he comprehend them. To the state of the student succeeds that of the married man or the housekeeper, when the youth begins to sustain his part in the business of life. He may, however, continue his whole life a pupil, waiting upon and serving his preceptor the Brahmin until his death. By this devotion to him he acquires a title to the highest rewards of religion. Of the common people, a few individuals only are taught to read or write. The great

¹ Orme *On the Government and People of Indostan*, p. 431.

² Tennant, *Indian Recreations*.

³ Rickards' *India*, p. 3.

Hindustan. body of the people remain in ignorance. They can explain nothing of their own religious system, nor of the ceremonies which they attend. This gross and universal ignorance, whilst it is the parent of crime, exposes the Hindus to all the artifices of priestcraft, and of every quack who pretends to skill in any art or science whatever. The unbounded influence of the priests is highly inexpedient, and has in some instances been found dangerous to the public peace. On one memorable occasion, as related by Bishop Heber, this influence became a political engine, which was wielded with great effect, to the alarm of the local government. Among other superstitions of the Hindus, it is well known that they inflict evils on themselves or others, even to the sacrifice of their lives, under the idea that they will be avenged on their enemies. One of these practices is to sit "dhurna," or mourning, in a fixed posture, without food, and exposed to the weather, until the person against whom the religious rite is directed agrees to give redress. It is firmly believed, that if the person dies in this mourning state, his avenging spirit will ever afterwards haunt and torment him whose obstinacy may have occasioned his death. The Hindus resort to this practice in order to enforce payment of a debt, or forgiveness of one; and it is a notion amongst them, that whilst an aggrieved person sits at their door "dhurna," they can neither eat nor undertake any business. Brahmins are even sometimes hired to sit *dhurna*, and their sacred character is supposed to give a peculiar awe to the ceremony. It was in opposition to an unpopular and heavy tax on houses in the city of Benares, against which they had in vain remonstrated, that the whole population, far and near, resolved to sit "dhurna" till it was repealed. On this occasion the leading Brahmins took their measures with surprising concert and unanimity. Handbills were circulated explaining the causes and necessity of the measures, "calling on all lovers of their country and national creed to join in it, and commanding, under many bitter curses, every person who received it to forward it to his next neighbour. Accordingly," adds Bishop Heber, "it flew over the country like the fiery cross in the Lady of the Lake; and, three days after it was issued, and before government was in the least apprised of the plan, above 300,000 persons, as it is said, deserted their houses, shut up their shops, suspended the labour of their farms, forbore to light fires or dress victuals, many of them even to eat, and sat down with folded arms and drooping heads, like so many sheep, on the plain which surrounds Benares." There was every reason to dread some violent issue to such an extraordinary transaction. The local government, exceedingly perplexed by so strange and vast an assemblage, acted with consummate prudence; and this motley multitude being let alone, gradually dispersed. The rulers of India, thus admonished, were fain to repeal the obnoxious tax. The ignorance of the great body of the Hindus exposes them to impositions of every description. In the medical art, charms, incantations, exorcisms, and the shallowest tricks, are substituted for professional skill; and other impostors, generally Brahmins, practise astrology, and cheat them out of their money by pretended prophecies, from the aspect of the skies. The belief of sorcery and witchcraft is universally prevalent amongst them, and leads, as it formerly did in our own country, to cruel enormities. Persons suspected of witchcraft are the objects of fear and hatred; and their neighbours often assume the right of trying them for this crime, by charms and incantations, such as planting a branch of the saul tree in water, with the name of the suspected person, and if it wither within a certain time, the accused is condemned to death as a witch.

The Hindu is distinguished by the slenderness and delicacy of his corporeal frame, which is partly the cause of

his peculiar timidity. His make, his physiognomy, and his small degree of muscular strength, convey a remarkable idea of effeminacy, especially when contrasted with the robust stature of a European who is making the observation. "The sailor," says Orme, "no sooner lands on the coast, than nature dictates to him the full result of this comparison. He brandishes his stick in sport, and puts fifty Indians to flight in a moment." The Indian, however, greatly surpasses the European in the sensibility of his touch, and in the flexibility of his limbs; and hence, with tools which would scarcely enable the clumsy fingers of the one to make a piece of canvass, he weaves the finest cambrics; and in all feats and contortions of the body, in the art of tumbling, and in juggling tricks, the Hindus excel all other nations. They are also patient of bodily fatigue, and in running or marching will distance more robust competitors. An Indian messenger will travel on foot fifty miles a day for twenty or thirty days without intermission. They are withal remarkable for bodily inertness, and the love of repose. "It is more happy," they say, "to be seated than to walk; it is more happy to sleep than to be awake; but the happiest of all is death." Their amusements are accordingly all of the sedentary kind. A game which resembles chess and draughts, though without either the variety or interest of the former, is one of their favourite amusements; and, like all rude nations, they are passionately fond of gaming, though it is contrary to the Gentoo code; also of feats of agility and legerdemain; and a juggler who erects a stage in any part of the East is sure to draw a crowd of spectators. Buffoonery, story-telling, music, consisting of simple melodies, and dancing, which they enjoy as spectators, complete the catalogue of Hindu amusements. Their extreme fondness for hunting forms an exception to their general indolence; all the different races in India, Europeans, Moguls, and Hindus, shaking off their natural sumpiness, are seen to concur in the ardour of the chase. Hawking is also keenly pursued by natives of distinction. Besides falconers, fowlers, and game-keepers, Hindus of rank employ persons to ensnare wild animals; and the contrivances they resort to are not less ingenious than successful.

Many have given credit to the Hindus for cleanly habits, from their frequent ablutions; but the reverse is the case. A taste for cleanliness is a proof of refinement; it is a sure mark of a highly civilized people; and accordingly it is not to be found in any part of Asia. Almost all the Asiatic cities are distinguished by narrow streets, into which, as there are no police regulations, all sorts of filth are indiscriminately thrown. The Hindus form no exception to this general censure. In all the great towns the streets are filthy. Nor are the Hindus more cleanly in their persons. Their linen, being dyed, is seldom washed; and, like the Chinese, they frequently allow their robes to drop off with filth before they think of changing them.

A simple and despotic monarchy is the only form of Government which was established under the native princes of Hindustan; and it was a despotism in the true Asiatic sense of the word, under which neither laws nor manners restrained the excesses of absolute power. In the most despotic states of Europe, the authority of the monarch is controlled by the influence of manners, and life and property are perfectly secure. But this was far from being the case in India; the sovereign was supreme arbiter of the lives and properties of all his subjects. Nor was this power allowed to lie dormant; it was frequently enforced in cruel and arbitrary acts; and the annals of India are accordingly stained with the most revolting outrages of abused power. Wealth presented too tempting a prize to lawless violence; and its possessor, if he

Hindustan neglected to make large and seasonable presents, was sure to be accused of some pretended crime, thrown into a dungeon, and plundered. "Instead of giving him poison," says Orme, in his just estimate of the people and government of Hindustan, "which would not answer the end proposed, as his treasures are buried, he is beset with spies, who watch his minutest actions, and probably propose to him a commerce with the enemies of the province. If he avoid these snares, a profitable post in the government is proposed to him, which, if he accepts, his ruin is at hand, as the slightest of the villainies practised in every branch of it affords grounds for making him a public criminal. Should he have escaped this too, it remains that some more glaring and desperate measure of iniquitous justice hurry him to destruction." Mr Orme then proceeds to mention the case of a wealthy banking-house, the partners of which were personally known to him, who, having dexterously avoided all the snares laid for their property and life, were at length involved in an accusation by the accident of one of the dead bodies which are continually floating on the Ganges being thrown ashore under the walls of their house, on which it was surrounded by the officers of the civil magistrate, who dragged them to prison as the murderers of a son of Mahommed, and having ordered them to be severely scourged, extorted from them as the price of their liberty a present of 50,000 rupees. Another wealthy individual was forced to give in one present, to the nabob of Bengal, a sum equal to three hundred thousand pounds sterling.¹ Bishop Heber relates of the Rannee, or princess of Jeepoor, that she murdered a female attendant, a woman of character, and possessed of considerable wealth, who was believed, until that time, to stand high in her mistress's confidence. Eight other women of the Zenana believed themselves marked out for destruction. Another princess, who possessed a jaghire or landed estate near Meerut, frequently ordered the ears or noses of her attendants to be cut off for slight offences; and one of her dancing girls was imprisoned under ground, and starved to death, she herself keeping watch until she heard the last faint moans of her expiring victim.² Such enormities present a dreadful picture of Indian despotism, and fully bear out Mr Orme in his contrast between the manners of Europe under the influence of Christianity, and those of Hindustan, under which poisonings, treachery, and assassinations, are daily committed by the votaries of ambition, as are rapines, cruelty, and extortions, by the ministers of justice.

From the great extent of the Mogul empire, the influence of the supreme power was but feebly felt in its distant parts, and the kingdom was accordingly divided into distinct provinces, in which deputies or viceroys, called nabobs, ruled with delegated power. Those provinces were again subdivided into districts, which were committed to the subordinate administration of rajahs. These districts might consist of one town and its territory, or of a thousand towns; and hence the Hindu system of provincial government comprehended different degrees of princely dignity and dominion, according to the extent and value of the lands that were assigned. But all these various rulers, though each was amenable to the one above him, exercised supreme and despotic sway within their own districts. There was also a particular rank of princes called subahs, who ruled in the extremities of the kingdom, in which the rigour of the supreme authority was weakened by distance, with higher rank and greater powers than the rajahs. The Deccan was under the ad-

ministration of a subah, as was also the extensive and distant province of Bengal. The absolute power of the Great Mogul descended without any loss of vigour to all its inferior delegates; and in this manner the whole of the country groaned under the dominion of numerous tyrants. From this extensive delegation of the superior power, it happened, that on the decay of the Mogul empire, the provincial rulers gradually acquired independence, and, in their warfare with each other for dominion, filled the country with rapine and bloodshed. "Hindustan," says Major Rennell, "even under the Moguls, may be considered as a collection of tributary kingdoms, each accustomed to look no farther than its own particular viceroy, and of course ever in a state to rebel, when the imbecility of the emperor, and the ambition of the viceroy, formed a favourable conjuncture;" and accordingly he observes that "rebellions, massacres, and barbarous conquests, make up the history of this fair country, which, to an ordinary observer, seems destined to be the paradise of the world."³ And to the same purpose Orme remarks: "If the subjects of a despotic power are everywhere miserable, the miseries of the people of Hindustan are multiplied by the incapacity of the power to control the vast extent of its dominion; and thus," he adds, "the contumacy of vicegerents resisting their sovereigns, or battling among themselves, is continually productive of such scenes of bloodshed, and of such deplorable devastations, as no other nation in the universe is subject to."⁴

In the Mogul sovereign was vested the whole administration of the state, the executive as well as the legislative and judicial powers. In his executive duties the law assigned him a council of state, the functions of which generally devolved on some favourite minister. His legislative duties were simple, seeing that religion was the law, and that the sacred ordinances constituted the judicial code, which it would be impiety to alter. The Brahmins being the sole interpreters of the holy books, acted as assessors to the nabob or rajah, or his delegates in the judicial office. The mode of administering justice had an appearance of openness and fairness, and the forms of the court were extremely simple. The seat of justice was exposed in a large area, capable of containing the multitude; and here justice was administered by the duan or judge, in the absence of the nabob; the plaintiff having attracted attention by his importunate clamours, was ordered to be silent, and to advance before the judge, to whom, after having prostrated himself, he told his story in the plainest manner. He visited the judge in private, gave the jar of oil, and his adversary bestowed the hog, which broke it; the friends who had influence interceded, but it was the largest bribe that ultimately gained the cause. The forms of justice were no doubt preserved; witnesses were heard, but browbeaten, and removed if their evidence did not please the judge. "Proofs of writing," says Orme, "are produced; but deemed forgeries and rejected, until the way is cleared for a decision, which becomes totally or partially favourable, in proportion to the methods which have been used to render it such; but still with some attention to the consequences of a judgment which would be of too flagrant iniquity not to produce universal detestation and resentment." In Hindustan, accordingly, the judicial tribunals afforded no refuge to the oppressed; they were rather instruments of tyranny, by which the unhappy people were plundered under the forms of law. Avarice is the reigning vice of Hindustan, and power is used by all public functionaries

¹ Orme *On the Government and People of Indostan*, p. 450.

² Heber, vol. ii. p. 278, 279.

³ Rennell, *Memoir of a Map of Hindustan*, p. xlix.

⁴ Orme *On the Government and People of Indostan*, p. 309.

Hindustan as the means of its gratification. The havildar, the head of a village, calls his habitation the durbar, and plunders of their meal and roots the wretches within his jurisdiction; the zemindar fleeces him of the small pittance of silver which his penurious tyranny has scraped together; the phoosdar, or military commandant of the province, seizes on the zemindar's collections, and bribes the nabob's connivance in his villanies by a share of the spoil; the covetous eye of the nabob ranges over his dominions for prey, and employs the plunder of his subjects in bribing or in resisting his superiors. "Subject to such oppressions," says Orme, "property in Hindustan is seldom seen to descend to the third generation." Many suits are, however, decided amongst the Hindus with equal accuracy and despatch, by arbitration of friends, the heads of castes, or the chief inhabitants of the village.

Taxation. This important subject will perhaps be more properly considered when we come to treat of the political transactions of the British in India, and of their administration of the revenues of the Mogul empire. In the mean time it may be observed, that those revenues chiefly arose from a tax on the land, imposed by the sovereign, or from a share in its produce, which, according to some, he received as proprietor of the soil. The tax was immediately paid into the imperial treasury by the zemindar, who collected it from a variety of under tenants, holding by peculiar tenures, which will be afterwards more particularly considered. The proportion of the crop claimed by the government varied, according to the fertility of the land, from a sixth to a twelfth part; and being ascertained by the proper officers, it was either paid in kind or in money. Custom-duties were levied on imports by sea, and by land on the transit of goods at the different toll-bars in the country. These were sometimes farmed out by the local authorities. Other taxes are enumerated in the sacred books, on mercantile profits, on which was levied a fiftieth, or even a twentieth part; on the accumulation of property in gold, silver, precious stones, cattle; on the purchases and sales of merchants; and on mechanics and serving-men, who were liable for a contribution of labour at the rate of a day in each month. A trifling poll-tax was imposed on the meaner inhabitants. Exclusive rights of manufacture, and trade in certain articles, such as salt, arrack, betel-nut, and tobacco, were also granted to the inhabitants for an annual payment.¹ The Hindu rulers, however ignorant in other matters, thus appear to have been familiar with all the most approved modes of plundering their subjects; and these failing, they had recourse to open violence. It is mentioned by Mr Rickards, whose views of Indian manners seem to be equally judicious and accurate, that those revenue systems of India never were, "because they never could be, literally enforced, the real practice being to exact and plunder, without any fixed rules, all that could be squeezed out of defenceless subjects." After enumerating the various revenue officers who acted under the sovereign, such as nabobs, dewars, foujedars, amildars, tchsildars, jaghiredars, zemindars, polygars, talookdars, rajahs, naiks, wadeyars, &c., he adds, "swarms of harpies were thus spread in every direction, even to the mundils and potails of villages; and despotism established, as it were, in detail, in every corner of the land. Power was here a license to plunder and oppress. The rod of the oppressor was literally omnipresent; neither persons nor property were secure against its persevering and vexatious intrusions. The common transactions of

life became objects of punishment or extortion. And no other principles being known or dreamt of in India than arbitrary power on the one hand, and abject submission on the other, a state of society was fixed and rooted in the manners, the poverty, and the ignorance of the people, of which no parallel nor resemblance is anywhere to be found in European states."²

The laws of the Hindus which apply to property, and which regulate sales or purchases, loans, transfers, and deposits of goods, though they are founded on the principles of justice, are frequently rude, loosely expressed, and such as, along with a corrupt judicature, must leave every thing to the discretion of the judge. The law fixes the price of commodities, regulates the interest on money, and on the loan of goods, such as grain, fruit, &c.; and, by a peculiar injustice, imposes a greater interest on the servile castes than on the Brahmins and soldiers. The modes of enforcing debts are the same as in all other countries. The creditor may seize upon the property or person of his debtor, whom he may beat or otherwise maltreat, and, if he be of an inferior caste, compel to labour for his profit. He may even confine his wife or children. Another mode of enforcing payment is by sitting dhurna, a ceremony already explained. The laws of inheritance form an important branch of the Hindu code, though it is justly remarked,³ that "the slavery to which the rights of parent and husband subject the female, abolishes at once all suits of dowries, divorces, jointures, and settlements." On the death of the father, his property is divided amongst his children, who frequently live together, with the elder brother as their head. If they separate, the eldest receives one twentieth more than the others. Science and good conduct are mentioned as grounds of preference, as vice of exclusion; and thus is laid the foundation of endless disputes. In some cases the gross and cruel superstition of the Hindus subverts the principles of justice; the blind, the deaf, the dumb, or those affected with leprosy, or any other incurable disease, being deprived of their share in the paternal inheritance. Children of different castes inherit according to the rank of the mother, and those of concubines receive only half the share of legitimate children. All property in Hindustan is regulated by law, the Hindus having no idea of devising by rule; nor are any members of the family at liberty to alienate, except in certain particular cases, any part of the common stock.

The criminal code of the Hindus is distinguished, like that of all rude nations, by severity; and also by caprice and partiality. The offences of the low-born tribes against the higher receive a full measure of vengeance, whilst the latter are but slightly punished for the injuries which they inflict on their inferiors. It is enacted, that if a Sudra strike a Brahmin with hand or foot, the offending member shall be cut off; if he insult him with his tongue, it shall be slit, or a red-hot iron shall be thrust into his mouth. Murder is punished with death, theft with fine, and the more heinous cases with various degrees of mutilation, with impaling, burning alive, and crucifixion. The multifarious cases of offence which are detailed in the Hindu code, such as throwing ordure, or the refuse of victuals, on another, spitting upon him, &c., are many of them insignificant, and scarcely merit the minute enumeration which is given. The illicit intercourse of the sexes is a complicated subject, into the details of which it is unnecessary to enter. It seems principally directed against the want of chastity in women, which is punished

¹ See *Fifth Report of Committee of the House of Commons*, 1810, p. 83.

² *India, or Facts submitted to demonstrate the Character and Condition of the Native Inhabitants*, by R. Rickards, Esq. p. 255.

³ Orme *On the Government and People of Hindostan*.

Hindustan. as the most shocking of crimes, by burning on a heated plate of iron; or against the lower tribes, in whom adultery with a Brahmin woman is considered as the climax of human depravity, scarcely to be avenged by any punishment, however dreadful. On the other hand, crimes committed by the higher classes against the lower are very slightly punished; the scale of punishment being in all cases graduated in an inverse ratio to the rank of the offenders.

**Architec-
ture.**

In architecture, in the fine arts, in painting and music, the Hindus are greatly inferior to the Europeans. The pagodas, the tombs, and other structures, the only remaining specimens of their architecture, are, according to some, more remarkable for the magnitude of their dimensions than for their just proportions or fine taste. "The columns and pillars," says Tennant, "which adorn their immense pagodas, are destitute of any fixed proportions; and the edifices themselves are subjected to no rules of architecture." He afterwards adds, that the celebrated mausoleum at Agra has little to boast of either in simplicity or elegance of design. "The immensity of its size, its costly ornaments, and the minute exactness of its decorations in particular parts, are worthy of notice; but they afford much stronger proofs of the wealth and magnificence of Shah Jehan, than the correctness of its taste." The tombs and religious edifices of Hindustan are, on the other hand, highly commended by Bishop Heber for delicacy, beauty, and taste. The mausoleum at Agra he celebrates as the most splendid building, in its way, that he had seen in India.¹ Humaion's tomb at Delhi he also praises as a noble building of granite, inlaid with marble, and in a very chaste and simple style of Gothic architecture; and of the imanbara or cathedral at Lucknow he remarks, "The whole is in a very noble style of eastern Gothic, and, when taken in conjunction with the Roumi Durwazu which adjoins it, I have never seen an architectural view which pleased me more, from its richness and variety, as well as the proportions and general good taste of its principal features."² There seems no doubt, from the splendid structures that are still found in different parts of Hindustan, that architecture and the kindred arts had flourished amongst the Hindus of a remoter age; though it is mentioned by Colonel Todd, that very few good specimens of the art have been executed within the last 700 years. His description, however, of the splendid Jain temples at Ajmeer and other parts, some of them erected long prior to the Christian era, and distinguished alike by chasteness and beauty of design, and by rich and exquisite finishing, must convince the most incredulous, that in these remote times the arts had made great progress in Hindustan. These structures are not merely monuments of labour, but of taste; they evince the perfection of art; and in symmetry, beauty of proportion, unity of design, and splendid ornament, they rival the noblest productions of classical Europe. The history of the people who have raised these structures presents a wide field for antiquarian research, on which Colonel Todd has entered with the brilliant promise of interesting results; and to his learned inquiries and eloquent and poetical descriptions

we refer for a further account of those ancient monuments **Hindustan.** of Hindu art.³

Of the Hindu paintings the chief merit is brilliancy of colour, rather than taste in the design or liveliness of expression. They imitate most exactly, and are excellent draughtsmen; and they draw specimens of natural history with much neatness and accuracy. "The laborious exactness with which they imitate every feather of a bird," says Tennant, "or the smallest fibre on the leaf of a plant, renders them valuable assistants in this department; but farther than this they cannot advance one step. If your bird is to be placed on a rock or upon the branch of a tree, the draughtsman is at a stand; the object is not before him, and he can supply nothing."⁴ Since this period, however, the Hindus have made great advances in the art of painting; and some of their portraits display taste and expression that would not discredit European artists.

Painting.

The music of the Hindus is rude and inharmonious. **Music.** They have numerous instruments, but those are preferred which make most noise; the beating of the great drum is reckoned an emblem of sovereign power.

The literature of the Hindus has been generally rated **Literature.** very low by European writers, and has been represented as consisting in long desultory poems, inflated and extravagant in their style, containing, under the idea of a history, a tissue of absurd fables, interspersed with passages or episodes that are tender and passionate, and possess all the sweetness of pastoral poetry. They are said to be totally destitute of historical annals, and their geography is a mass of errors. Nor has their astronomy those claims to antiquity which were at first allowed. Accurate inquiry has proved this science to be in its infancy amongst them.⁵ The want of historical records by the Hindus is strongly denied by Colonel Todd, who has himself composed a history of the Rajpoots from native works, which he found in the libraries of their princes, and he asserts that in those depositories of Hindu literature many more works exist, which would reward the researches of the learned. "The works of the native bards," he observes, "afford many valuable data in facts, incidents, religious opinions, and traits of manners." "In the heroic history of Pirthi-raj, by Chund," he adds, "there occur many geographical as well as historical details, in the description of his sovereign's wars, of which the bard was an eye-witness, having been his friend, his herald, his ambassador, and finally discharging the melancholy office of accessory to his death, that he might save him from dishonour." The Brahminical accounts of the endowments of temples, of their dilapidation and repairs, supply historical and chronological details; also the legends respecting places of pilgrimage and religious resort. Much historical information lies hid in the controversial records of the Jains; and, says Colonel Todd, "those different records, works of mixed historical and geographical character, which I know to exist, *rasahs* or poetical legends of princes, which are common, local *puranas*, religious comments and traditionary couplets, with authorities of less dubious character, namely, inscriptions cut on rocks, coins, copperplate grants, containing charters of immunities, and expressing many singular features of civil government,

¹ The following is his description of this monument of Hindu art:—"It stands in a square area of about forty English acres, enclosed by an embattled wall, with octagonal towers at the angles, surmounted by open pavilions, and four very noble gateways of red granite, the principal of which is inlaid with white marble, and has four high marble minarets. The space within is planted with trees, and divided into green alleys, leading to the central building, which is a sort of solid pyramid, surrounded externally with cloisters, galleries, and domes, diminishing gradually in ascending it, till it ends in a square platform of white marble, surrounded by most elaborate lattice-work of the same material, in the centre of which is a small altar tomb, also of white marble, carved with a delicacy and beauty which do full justice to the material, and to the graceful forms of Arabic characters, which form the chief ornament."

² Heber, vol. ii. p. 65.

³ *Annals of Rajast'han*, vol. i. chap. xxv. p. 670; chap. xxx. p. 779.

⁴ Tennant, vol. i. p. 299.

⁵ For more full details on this subject, the reader is referred to Mill's *History of British India*, vol. ii. p. 85, et seqq.

Hindustan. constitute, as I have already observed, no despicable materials for the historian." Colonel Todd is of opinion that the ancient records of the Hindus are more complete than the early annals of the European states.

History. Prior to Alexander's expedition into India, which took place 327 years before the Christian era, the Greeks appear to have known little of these eastern countries, except from the confused accounts of travellers; and nothing whatever of the countries beyond the sandy desert of the Indus, which, with its tributary streams, was the limit of Alexander's progress eastward. The men of science who accompanied this warlike prince brought to Europe full and accurate accounts of the countries which he had conquered; and the spirit of inquiry, now awakened amongst the Greeks, was still further gratified by the ample accounts of Megasthenes, the ambassador sent to India by Seleucus, and who resided long at Palibothra, the capital of the Prasii, near the mouth of the Ganges. The Greek writers, drawing their information from those sources, describe the leading features of Indian society and manners, and with an accuracy which stamps authenticity on their narratives. It is unnecessary to dwell upon the particulars of Alexander's expedition, which are fully described in many other works; and from that until the period of the Mahomedan conquest, when the native records commence, there is nearly a complete chasm in the annals of Hindustan. The Hindus had either no records, or these had been destroyed during the intestine commotions which have always prevailed in India. The historical poem, the Mahabarat, is a tissue of extravagant fables. Ferishta's history, written early in the seventeenth century, is supposed to have been collected from Persian authors; and the most valuable part of it begins after the commencement of the Mahomedan conquests. It was about the year 1000 that Hindustan, formerly ruled by a pure Hindu monarchy, fell under the sway of the Mahomedan conquerors, who subdued all the provinces west of the Ganges, and formed them into one great empire. On the fall of this empire, India became one scene of commotion and war, and her finest provinces were laid waste. It was then that the Mahratta empire arose, like a meteor in the political sky, blazing for a while, and soon fading into obscurity; and by its fall paving the way for the ascendancy of the British, whose powerful sway now extends from the Himalaya Mountains to Cape Comorin. We shall endeavour to sketch the leading and most eventful scenes of that political drama, which has thus terminated in the subjection of all India to one great ruling power.

Conquest by the Mahomedans.

The Mahomedan powers having subdued Persia and the neighbouring countries, made occasional inroads into India; and, about A. D. 1000, Mahmoud entered Hindustan, in which he effected a permanent establishment. This prince was the grandson of Subuctagi, the ruler of Ghizni, consisting of the tract which composed the kingdom of Bactria after the division of Alexander's empire, namely, the countries lying between Parthia and the Indus, and south of the Oxus. He invaded India twelve several times, massacring in his intolerant rage the Hindus as infidels, and defacing and destroying their temples. "Nothing," observes Major Rennell, with his usual force, "offends our feelings more than the progress of destruction, urged on by religious zeal, as it allows men to suppose themselves agents of the divinity, thereby removing those checks which interfere with the perpetration of ordinary villany, and thus makes conscience a party where she was meant to be a judge." The last invasion of India by Mahmoud was in 1024, and in four years afterwards he died. His dominions comprehended the eastern provinces of Persia, nominally all the Indian provinces westward of the Ganges, to the peninsula of Gujerat, and from the Indus to the mountains of Ajmere.

VOL. XL

The Punjab, or the tract watered by the Indus, and its five tributary rivers, was all that was subjected to the regular government of the Mahomedans. The rajpoots of Ajmere defended their rugged mountains and close valleys with obstinate valour. The Ghiznian empire was in the year 1158 divided into two; the western portion being seized on by the family of the Gaurides (so denominated from Gaur or Ghir, a province or city lying beyond the Indian Caucasus), whilst the countries on the Indus were possessed by Chusero or Cusroe, who fixed the seat of his empire at Lahore. The Mahomedans now extended their conquests eastward; and Mahommed Gori, in 1194, took the city of Benares, which he abandoned to pillage. He carried his arms to the south of the river Jumna, and took the fortress of Gualior; he also reduced the eastern frontier of Ajmere. He was succeeded in 1205 by Cuttub, who fixed his capital at Delhi, and founded in Hindustan the dynasty of the Patans or the Afghans, who inhabited the mountainous tract situated between India and Persia. The Emperor Altmush succeeded him in 1210, and extended his conquests over Bengal. In his reign the renowned Ghenghiz Khan subdued the western empire of Ghizni; and the Moguls, or the Monguls, his successors, about the year 1242, made frequent irruptions into the north-western provinces of Hindustan. The country was in the mean time a scene of intestine commotion, from the contests of rebellious chiefs aspiring to supreme authority, and from the irruptions of the predatory hill tribes into the plains below. In 1265, about 100,000 of these plunderers were put to the sword, and a line of forts constructed along the foot of the hills. In the mean time, the Patan monarchs of Delhi were prosecuting their conquests eastward, and the Moguls were making incursions into the western provinces; and a considerable number of them under Ferose II. were at length permitted to settle in the country in the year 1292. In 1293 this emperor invaded the Deccan, or the country lying to the south of the Nerbuddah and the Cuttuck rivers. He was deposed and murdered by Alla, the governor of Gurrah, who advised the expedition, and who extended his conquests in the Deccan. Cafoor, one of his generals, penetrated into the Carnatic, or the peninsula lying to the south of the Kistna river, in 1310. Rebellions breaking out in Tellingana, a principality in the Deccan, it was again subjugated in 1322 and in 1326, in which year Alla died, and the Carnatic was ravaged from sea to sea. Under a succeeding emperor, Mahommed III., the Mahomedans were driven from the Deccan and Bengal, and lost much territory in Gujerat and the Punjab. Ferose III., who succeeded, was more intent on domestic improvement, and in constructing canals, than on foreign conquest. He died in 1388, and Mahmoud III. succeeded, during whose minority great confusion ensued; and in 1398 the country was invaded by Tamerlane, who advanced to Delhi, which submitted without a struggle, and was abandoned to the fury of the soldiery, who continued for several days to massacre the defenceless inhabitants. The military irruption of Tamerlane into Hindustan was more for the sake of plunder than of conquest, though it added to the existing anarchy of the country. In 1413 Mahmoud died, and with him ended the Patan dynasty, founded by Cuttub in 1205. A period of great confusion followed, and numerous competitors contended for dominion. This state of anarchy, which came to a height under Ibrahim II. in 1516, paved the way for the conquest of Hindustan by Sultan Baber, a descendant of Tamerlane and of Ghenghiz Khan, who reigned over a kingdom composed generally of the provinces situated between the Indus and Samercand. Being dispossessed of the northern portion of his dominions by the Usbecks, he invaded India, and in 1525 defeated the emperor of Delhi, and conquered the north-eastern provinces of India. He was succeeded, after

3 F

Hindustan. a reign of five years, by his son Humaioon, who was driven from his throne by the rebellion of Sheer Khan, whose successful usurpation was succeeded by such a period of disorder, five sovereigns having appeared on the throne in the course of nine years, that Humaioon was recalled in 1554, and died the following year, leaving his son, the celebrated Acbar, only fourteen years of age, the heir to the throne. His was a long and glorious reign of fifty-one years, in which the revolted provinces were reduced from Ajmere to Bengal, and consolidated into one empire by the unlimited toleration of the Hindus and all others, and generally by a just and wise policy. In 1585 and the subsequent years he invaded the Deccan, which, by the dissolution of the Bahmenee empire, was divided among the sovereigns of Bejapoor, Ahmednagur, and Golconda, whilst another army was reducing the country of Cashmere in an opposite direction. At the time of Acbar's death in 1605, he had possession of the western part of Berar, Candeish, Telhyana, a division of Golconda, and the northern part of Ahmednagur, the capital of which was taken in 1601, after a long and bloody siege, and an unsuccessful attempt to relieve the place by the confederated princes of the Deccan.¹ Acbar died in 1605, at which time his empire was divided into fifteen viceroyalties, called subahs; namely, Allahabad, Agra, Oude, Ajmere, Gujerat, Bahar, Bengal, Delhi, Cabul, Lahore, Moulton, Malwah, Berar, Candeish, and Ahmednagur. He was succeeded by his son Selim, under the title of Jehanguire. It was in his reign, in 1615, that Sir Thomas Roe, the first English ambassador, was sent to the Mogul emperor of Hindustan; and the Portuguese had by this time acquired considerable settlements in Bengal and Gujerat. Shah Jehan, who disturbed his father's reign by constant rebellions, succeeded to the throne in 1627, and pursued his conquests in the Deccan with renewed vigour, filling the country with plunder and devastation. It was in this reign, in the year 1633, that the first serious quarrel took place between the Portuguese and the Moguls, when the former were expelled from Hooghly in the Ganges. In 1658 the country was again distracted by the civil wars of the emperor and his sons, and of the sons amongst themselves contending for dominion. Shah Jehan died on the 21st of January 1666, after being seven years confined in the castle of Agra. The Mogul empire at his death extended from Cabul to the Nerbuddah, westward of this river to the Indus, and eastward it comprehended Bengal and Orissa; and to the south the Moguls had reduced a large tract of country bounded by Berar on the east, westward by the hills towards Concan, and by the dominions of Golconda and Viziapore to the south. These convulsions, by which India was at this time distracted, ended in the elevation to the throne of the renowned Aurungzebe, the youngest son of Shah Jehan, whom he had deposed; he had also murdered or expelled his three brothers. In 1660, Aurungzebe, who took the title of Allumgere, or Conqueror of the World, was firmly seated on the throne; and from that period until the year 1678, Hindustan enjoyed more profound peace than it had ever before known. In the mean time Aurungzebe invaded the Deccan, which during the latter part of his reign was, with the exception of a few mountainous tracts, subdued by his victorious arms, and rendered tributary to the ruler of Delhi. He was afterwards engaged, in 1678, in quelling the rebellion of the Patans beyond the Indus, and the Rajpoot tribes, by whom he was hemmed in amongst the mountains, and narrowly escaped. He again invaded the country in 1681, and took and destroyed Cheitore, the capital, and all the objects of Hindu worship found there. The obstinate resistance of these gallant mountaineers at last

extorted peace from the mighty monarch of the Mogul Hindustan empire.

But Aurungzebe had now to contend with another enemy for the dominion of India. In the south the Mahratta power was fast rising into importance. Sevajee, the founder of this new state, was a military chief, the illegitimate son of the rana of Odeypoor, the chief of the Rajpoot princes. In his youth he resided at Poonah, on a zemindary estate obtained by his father. Here he collected around him a numerous banditti, and plundered the country. The number of his followers gradually increasing, he extended his ravages still farther into the dominions of Viziapore, and acquired an immense booty, which enabled him to increase his force, and openly to resist the troops of Aurungzebe which were sent against him. He expired in his fortress of Raynee, of an inflammation in the chest, at the age of fifty-two, on the 5th of April 1682. His whole reign was one continued scene of war and political intrigue, in which he displayed the talents of a consummate general and an able and crafty statesman. "He met," says Orme, "every emergency of peril, however sudden and extreme, with instant discernment and unshaken fortitude; the ablest of his officers acquiesced in the eminent superiority of his genius, and the boast of the soldier was to have seen Sevajee charging sword in hand."² At his death, his empire, with the exception of the small territory of Goa on the south, Bombay, Salsette, and an inconsiderable tract on the north, comprised a tract of country about 400 miles in length and 120 in breadth. He was besides in possession at one time, towards the Eastern Sea, of half the Carnatic. By his own talents he had thus acquired a permanent sovereignty, "established," says Orme, "on a communion of manners, customs, observances, language, and religion, united in common defence against the tyranny of foreign conquerors, from whom they had recovered the land of their own inheritance." Sevajee was succeeded by his son Sambajee, who was afterwards betrayed into the hands of Aurungzebe, and barbarously put to death. Aurungzebe died in 1707, in the ninetieth, or, according to some, the ninety-fourth year of his age, at Ahmednagur, in the Deccan, in the subjugation of which he had been engaged from the year 1678 until his death. He was for the most part engaged in the field during the last fifteen years of his life. Whilst he was absent in the Deccan, the peace of the empire was disturbed by insurrections of the Rajpoots in Upper India, and of the Jauts, now for the first time known in any other character than that of banditti.³ Under his reign the Mogul empire attained to its height. His dominions extended from the tenth to the thirty-fifth degree of latitude, with nearly as many degrees of longitude; and his annual revenue was equal to thirty-two millions sterling.

After the death of Aurungzebe, the sovereignty of the empire was disputed by his four sons, Munzum, Azem, and Kaum Buksh, who severally contended with their elder brother, and Acbar, who thirty years before had been engaged in rebellion, and fled to Persia. Munzum and Azem met in the field with armies of 300,000 men on each side, when the latter was defeated and slain, and Munzum ascended the throne under the title of Bahader Shah. He reigned five years, and the empire had been so distracted by civil wars and anarchy, that it required all his exertions to restore order. He was soon after his accession called into the Deccan by a rebellion of his brother Kaum Buksh, which was quelled by his death. He now turned his arms against the Rajpoots and the Sikhs, who for the first time appeared in arms in the province of Lahore. These insurgents he reduced after much trouble and delay; and he took up his residence at Lahore, where he died in 1712, after a short illness, having never during his reign visited

Reign of
Acbar;

of Aurung-
zebe.

Progress
of the
Mahrattas.

Internal
disorders.

¹ Rennell, p. lix.

² Orme's *Historical Fragment of the Mogul Empire*, p. 94.

³ Rennell, *Memoir of a Map of Hindustan*, p. 62.

Hindustan. either Agra, or Delhi his capital. He left four sons, who immediately commenced a contest for the throne. Azem Ooshawn, who took possession of the treasures, was killed in a battle with his other brothers. Jehan Shah, the youngest, next lost his life in a battle with Jehamder Shah, who was the eldest, and who successfully disputed the possession of the throne with the remaining brother. At the end of nine months, however, he was dethroned by Feroksere, a son of Azem Ooshawn, and great grandson of Aurungzebe, who was elevated to the throne by the influence of two brothers, Abdoola Khan and Hussun Khan, Seids by birth, or descendants of the prophet, whose talents had raised them to reputation and power. It was in this reign that the English East India Company obtained their famous firman or grant, by which they were exempted from all custom duties on the export and import of their goods. This was considered as the commercial charter of the Company as long as they required protection for their trade. In 1717 Feroksere was deposed and blinded by the two Seids, Hussun and Abdoola, to whom he owed his elevation to the throne. In his place they chose Ruffieh-ul-Dowlat, a son of Bahader Shah; and in less than a year deposed and put him to death. His brother, who by their means was also made king, met with the same treatment; so that in the course of eleven years, from the death of Aurungzebe, four princes of his line had ascended the throne, whilst six others had met the usual fate of unsuccessful aspirants to that dignity. Mahommed Shah, the grandson of Bahader Shah, was placed on the throne by the Seids in 1718, from whose influence he contrived at length to free himself, though not without a rebellion and a battle, in which they were both slain. In the mean time Mahommed Shah was deficient in the vigour which his difficult situation required, and the provincial governors at a distance began to show symptoms of independence. Nizam-ul-Muluck, the viceroy of the Deccan, was the most formidable of those pretenders to sovereignty. He had reduced the province of Gujerat and Malwah; and having paid a visit to the imperial court, and observed the dissolute administration of affairs, he quitted the capital in disgust, under pretence of a hunting excursion, for his government of the Deccan. He was deprived of the administration of Gujerat and Malwah, the two provinces which he had acquired. In revenge he encouraged the rulers of these provinces to resist the imperial authority; whilst at his instigation also the Mahrattas invaded the country, and after a severe struggle succeeded, about the year 1732, in completely reducing this long-disputed territory.

*Invasion
of Nadir
Shah.*

But a more dreadful calamity was now impending over the distracted empire. The sceptre of Persia had been long swayed by a feeble race of monarchs, and the country became an easy prey to the hardy mountaineers of Afghanistan, who in 1722 laid siege to Ispahan, when the feeble Hussun Shah surrendered the crown to the invader. He had a son Thamas, however, who escaped from the general massacre which ensued, and who was joined by many partisans, amongst others by Nadir, the son of a shepherd of Khorassan, who, with his band of followers, soon distinguished himself as a brave and active supporter of the fallen prince. In 1729 he retook Ispahan, and finally, by his talents, raised himself to the throne of Persia in 1736, having put out the eyes of the unfortunate son of the late monarch. Being afterwards engaged in an expedition against the Afghans, he advanced to the frontier of Hindustan, but without any ulterior views of hostility, when a messenger and his escort, whom he had despatched to the emperor at Delhi, were murdered at Jellalabad by the inhabitants; an outrage which being approved by Mahommed Shah, Nadir prepared for revenge. He gave up the of-

fending city to be pillaged by his soldiers; and advancing to Delhi, was met by the imperial troops, who were totally defeated. The views of the conqueror, however, were not hostile, and two crores of rupees would have purchased his retreat from Hindustan. But this amicable arrangement was frustrated by a dispute between Saadut Khan, subahdar of Oude, and the nizam of the Deccan, for the vacant office of Ameer-ul-Omrah, formerly paymaster of the forces. Saadut Khan, the disappointed candidate, persuaded Nadir Shah that the proffered sum was no adequate ransom for Hindustan; on which Nadir advanced to the capital, which opened its gates to receive him; and for two days thereafter the Persian troops observed the most exact discipline. But in the course of the night a rumour was spread that Nadir was killed, on which the inhabitants rose against their invaders, and massacred many of them. Nadir took severe and immediate revenge. He dispersed his irritated soldiers throughout every quarter of the city, with orders to spare neither age nor sex; and in this indiscriminate slaughter 100,000 persons are said to have perished, whilst the city was set on fire in several places. The imperial treasure was plundered; plate, jewels, and specie, were carried off to the incredible amount of thirty-two millions sterling. Rich bankers and others were forced by torture to disclose their hidden wealth, and a heavy contribution of thirty millions was imposed on the city by the relentless conqueror. Nadir Shah departed from Delhi, of which he had held possession thirty-seven days, in the year 1739; and the nizam still retained possession of the whole power of the empire, which he sacrificed to his own views in the Deccan, where he established an independent kingdom. Nadir Shah died in 1747. In the subsequent confusion, the eastern provinces of Persia, and those bordering on India, were formed by Abdalli, one of his generals, into an independent state, which comprised the ancient empire of Ghizni, and was known under the name of the kingdom of the Abdalli. Mahommed Shah died the same year, after a reign of twenty-nine years. Every day disclosed the growing weakness of the empire, and strong symptoms of its early and entire dissolution. In 1738 Bengal became independent under Aliverdy Khan, and it was soon afterwards invaded by a numerous army of Mahrattas from Poonah and Berar. About the same time the Rohillas, a tribe from the mountains which separate India from Persia, erected an independent state on the Ganges, within eighty miles of Delhi. Mahommed Shah was succeeded by his son Ahmed Shah, and in the reign of the latter the Mogul empire was finally dismembered. A small territory around Delhi was all that remained to the house of Timur, and it was the scene of devastation, massacres, and famine. The last imperial army that ever assembled was defeated in 1749 by the Rohillas. The Jauts founded a state in the province of Agra; the nizam and Aliverdy ruled in Bengal and the Deccan; Oude and Allahabad were each seized by independent chiefs; Malwah was divided between the Poonah Mahrattas and several native princes and zemindars. Ajmere reverted to its ancient lords, the Rajpoot princes. The Mahrattas, who now contended for the dominion of India, possessed, in addition to their share of Malwah, the greatest part of Gujerat, Berar, and Orissa, besides their ancient domains in the Deccan. "The whole country of Hindustan proper," Major Rennell remarks, "was in commotion from one extreme to another, each party fearing the machinations or attacks of the other; so that all regular government was at an end, and villany was practised in every form. Perhaps in the annals of the world it has seldom happened that the bonds of government were so suddenly dissolved, over a portion of country containing at least sixty millions of inhabitants."¹

*Decay of
the Mo-
gul em-
pire.*

¹ Rennell's *Memoir of Hindustan*, p. lxx.

Hindustan. In 1758 the Emperor Ahmed Shah was deposed by Gazi, the son of Gazi o'Dien, vizir to Mahommed Shah, who placed on the throne Allumguire II., grandson of Bahader Shah, and invested himself with the office of vizir. His perfidious conduct to the family of the viceroy of the provinces of Moulton and Lahore, under Abdalli, the king of the Afghans, involved the emperor in a quarrel with that powerful prince, who advanced from Candahar to Lahore, and thence to Delhi, the gates of which were opened by the feeble emperor, and the defenceless city abandoned for weeks to a licentious soldiery. After the retreat of the Abdallis, the vizir advanced with an army to Delhi, which he entered after a siege of forty-five days. The Mogul emperor was now reduced to the most abject state of dependence, and was at last assassinated by order of the vizir, who was irritated by his correspondence with the Afghan monarch Abdalli Shah, the Rohillas, and the nabob of Oude, with whom he himself was at war. His son took the title of Shah Aulum; he escaped from Delhi when it was besieged by the vizir, and, after a series of misfortunes, at last surrendered to the British, who gave him an asylum, and a pension for his support; and with him, the last of the Mogul sovereigns who enjoyed independent power, closes for ever the glory of this renowned empire.

Contest between the Mahrattas and the Afghans.

In the mean time, amidst anarchy and desolation, the Mahrattas were daily increasing in power; they were engaged in every scene of politics and warfare, from Gujerat to Bengal, and from Lahore to the Carnatic; they possessed extensive sway and vast armies; and their ambition was now to reconstruct a new Hindu empire out of the decayed fragments of the Mogul power. The rising influence of the Afghans under the rigorous sway of Abdalli was the only obstacle to this patriotic or ambitious scheme; and the Mahrattas, in the progress of their conquests northward, encountered for the first time their great rival for the dominion of India. Ahmed Abdalli, king of the Afghans, was taken prisoner when very young by Nadir Shah; he was first his slave, afterwards his mace-bearer, and at his death, having collected a body of troops and other adventurers, he proceeded to his own country, and proclaimed himself king of the Afghans, with the title of Doordowran, or pearl of the age, which was corrupted into that of Dooranee, and became the name of one of the Afghan tribes. Ahmed had extended his dominion over the frontier provinces of Moulton and Lahore, which, in retiring from India, he had left under the administration of his son. These provinces were first invaded by the Sikhs, and afterwards by the Mahratta generals, who advanced to Lahore and expelled the Abdalli prince, and afterwards extended their conquests to the Indus. Ahmed Shah, roused by the loss of his provinces and the dishonour of his arms, collected his troops, and encountered the Mahratta army, amounting to 80,000 veteran cavalry, which was almost entirely destroyed, and the general Duttah Sindia slain. The news of this defeat spread alarm amongst the Mahrattas, and roused them to the greatest exertions. A vast army, consisting of 140,000 horse, besides a numerous train of camp followers, commanded by the most renowned chiefs, took the field, and being unable to cross the Jumna, still swollen by the rains, proceeded to plunder Delhi, the capital. Ahmed Shah, with 150,000 well-disciplined troops, now advanced, and, in his impatience to meet the enemy, plunged with his whole army into the foaming waves of the Jumna, which he crossed in safety. The Mahrattas, struck by this daring exploit, retired to the plain of Paniput, and the armies continued in sight of each other from the 26th October to the 27th January 1761, during which interval several bloody skirmishes took place. On this latter day was fought the battle of Paniput, one of the most decisive and sanguinary recorded in history. The Mahrattas were overthrown with a dreadful carnage. The general, Bhaow, the nephew

Battle of Paniput.

of the peahwa, the chief of the Mahratta nation, was killed early in the action; most of the other chiefs were slain, and those of the soldiers who escaped from the slaughter of the field were massacred by the irritated peasantry, in revenge for the depredations of the Mahratta cavalry. And of the mighty host engaged in this fatal conflict, only a small remnant, with three generals, returned to the Deccan. This great battle gave an irreparable blow to the Mahratta power, which from this time sensibly declined, and the victorious Abdalli sought no other fruit of his victory. He returned to his capital after remaining a few months at Delhi, having recognised the son of Aulungeer as emperor, under the title of Shah Aulum the Second.

A new scene was now about to open in India. The Europeans, who as traders had long maintained establishments on the coasts, began to assume an entirely different character; to contend with each other in the field for dominion, and to mingle in all the wars and politics of the interior. It was necessary, for carrying on the domestic trade of India, and more especially in providing goods for the supply of Europe, that a body of experienced servants should reside on the spot, in order to collect and to purchase commodities for exportation; an employment which, owing to the poverty and abject state of the natives, and their peculiar customs, involved duties of the most minute and laborious detail. During the decline of the Mogul government, the tranquillity of India was frequently shaken by the contentions of rival chiefs; and the slight security afforded, even in the best times, to commerce, became in this manner more imperfect. For the reception of the goods which it was necessary to collect and store up, that cargoes might always be in readiness for the Company's ships, warehouses were built, which, with the counting-houses, and other apartments for the agents and business of the place, constituted the factories of the Company. These factories contained a valuable store of property, which, in the disordered state of India, it became necessary to secure from the rapacity both of governments and of individuals. They were therefore strongly built and fortified; their inmates were armed and disciplined; and, for better security, regular troops were occasionally maintained in those mercantile garrisons. In these defensive arrangements of the Company we may discern the rudiments of their future empire.

Rise of the European power.

The territorial acquisitions of the European companies were, however, still inconsiderable. The English East India Company had in 1698 been permitted to purchase the zemindaryship of the three towns of Sootanutty, Calcutta, and Govindpore, with their districts, to which was afterwards added a district extending ten miles from Calcutta, on each side of the river Hooghly, containing thirty-seven towns. On the Coromandel coast the English possessed Madras, with a small adjoining territory five miles along the shore, also Fort St David, in 11. 40. north latitude, with other places, such as Vizigapatam and Balasore; and on the west coast their principal settlement was the island of Bombay. Factories were also established at Surat, Tellicherry, and several other places. The business of the Company was managed by the three independent presidencies of Bombay, Madras, and Calcutta. The presidency consisted of a governor and council of nine, twelve, or any greater number of members, as might seem expedient, in a majority of whom all power was vested. The members of the council were not excluded from other more lucrative offices, which were, in general, shared amongst them. These offices were chiefly in the gift of the president, and, by means of his influence, the council were, in a great degree, placed under his control. The governor and council exercised the most ample powers over the servants of the Company; and with regard to all others, they could seize and imprison them, and afterwards send

Hindustan them to England. The powers of martial law were bestowed on them at an early period, for maintaining the discipline of the troops under their orders; and, in 1661, a charter of Charles II. gave them the power of administering civil and criminal justice according to the laws of England.

Pondicherry, with a small appendage of territory, was the principal seat of the French power on the continent of India. It had under its authority three factories, one at Mahé, on the Malabar coast, not far south from Tellicherry; one at Rarical, on the Coromandel coast; and one at Chandernagore, on the river Hooghly, in Bengal. The form of government was the same in the French as in the English settlements.

In 1744 France and England, from being auxiliaries, became principals in the war which was then raging in Europe, and the flame soon communicated to their distant colonies. In India the two rival powers were quickly involved in hostilities, which, however, were followed by no important result; and the English settlement of Madras, which had been taken by the French king, was restored at the peace of Aix-la-Chapelle. It was soon after this that the French and English, in supporting the contending claims of the native princes, again came into collision. At the respective settlements of the two Companies, the number of troops assembled during the previous war was greater than was necessary for defence, and the servants of the Companies, with such means at their disposal, now began to meditate schemes of conquest. The intricacies of Indian politics, and the family connexions of the different claimants who contended for power and dominion, need not be described in detail, as it would neither be instructive nor acceptable to the general reader. A brief sketch is all that will be necessary to explain the nature of those transactions which so deeply affected the future condition of India, and the relations of the parties engaged in them.

When Nizam-ul-Mulk was appointed ruler of the Deccan, with the title of subahdar, by the Emperor Aurungzebe, a chief named Sadatullah was nabob of the Carnatic. At his death, his son Doost Ali succeeded him as nabob, which proved displeasing to the nizam, who claimed the right, as delegate of the emperor, to appoint the viceroy of the Carnatic. He accordingly chose, first his general Cojah Abdoolla, and afterwards Anwar ad Dien Khan, known to the English as Anoverdy Khan, to be governor of the Carnatic in 1745. It was between these two families that the contest now began for the government of the Carnatic; Chunda Saheb, a distant relative of the family of Sadatullah, being supported by the French under their aspiring and ambitious governor Dupleix. The death of Nizam-ul-Mulk, in 1748, at the extreme age of 104, occasioned another dispute in the succession to the government of the Deccan, between Nazir Jung, his son, who was supported by the English, and Mirzapha Jung, his grandson by a daughter, who was aided by Chunda Saheb and the French. The latter in 1749, with 40,000 native troops, 400 French, 100 Caffres, and 1800 Sepoys, advanced against Anwar ad Dien. His camp was gallantly stormed by the French troops, he himself was slain, at the age of 107, his eldest son was taken prisoner, and his second son, Mahommed Ali, with the wreck of his army, escaped to Trichinopoly. Nazir Jung, hearing that the nabob of the Carnatic was defeated, collected an army, and summoned Mahommed Ali from Trichinopoly to his aid. He also requested assistance from the English, who sent Major Laurence from Fort St David with 600 Europeans to join his army. When the armies approached each other, D'Auteuil the French commander, being deserted by some of his officers, suddenly retreated to Pondicherry, leaving to their fate Mirzapha Jung, who surrendered to

his uncle, and was immediately put in irons, and Chunda Saheb, who followed with his troops to Pondicherry. But the enterprising Dupleix made new exertions, and having again taken the field, he attacked the camp of Nazir Jung, his former ally, who in the confusion was shot through the heart. Mirzapha Jung being now freed from imprisonment, assumed the authority of subahdar. He was afterwards shot dead with an arrow in an action with the rebellious Patan chiefs, and, by the influence of M. Bussy, who commanded the French troops, Salabut Jung, the eldest surviving son of Nizam-ul-Mulk, was raised to the government. After some unsuccessful operations, the English, with their allies, were compelled to take shelter under the walls of Trichinopoly, which was now besieged, though with little effect, by the enemy.

In this indecisive state of affairs at Trichinopoly, it was suggested by Captain Clive, who had already distinguished himself by desperate bravery and great military skill, that it would be advantageous to carry the war into the enemy's country; and being intrusted with the execution of his own bold designs, he began an attack on Arcot, the capital of Chunda Saheb. He had under him 210 Europeans and 500 Sepoys; and so secret and sudden were his motions, that he was master of the enemy's capital ere they were apprised of his march. Here he was soon invested, in the fort which defends the town, by a numerous army, and several practicable breaches being made, an assault took place, which was repulsed with loss; the assailants were finally compelled to raise the siege, and being pursued by Clive, were attacked and totally defeated on the plain of Arani, on the 3d of December 1751. The forts of Tinnery, Conjeveram, and Arani, immediately surrendered to Clive, who returned in triumph to Fort St David. He was soon recalled by the operations of the enemy, who were encouraged by his absence again to take the field. With a very inferior force he adventured on a battle, and by the well-concerted manœuvre of sending round a detachment to fall upon the rear of the enemy, whilst the English charged with the bayonet in front, he obtained a decisive victory, and the hostile army was saved from total ruin only by the darkness of the night. On his return to Fort St David, Clive was superseded in his command by Major Laurence, who detached him with 400 Europeans, a few Mahratta soldiers, and a body of Sepoys, to cut off the enemy's retreat to Pondicherry, in which he was, as usual, completely successful, having made the French commander M. d'Auteuil prisoner, with all his troops. The enemy were now greatly distressed for want of provisions; and Chunda Saheb, deserted by his troops, surrendered to the king of Tanjore, an ally of the English, by whom he was beheaded, in order to prevent all disputes with the Mysorean and Mahratta chiefs about the custody of his person. After the flight of Chunda Saheb, his army was attacked and routed by Major Laurence; and the island of Syringham, where his troops were encamped, was taken, with about 1000 French soldiers, under the command of Mr Law, the son of Law the author of the Mississippi scheme. Notwithstanding these disadvantages, Dupleix was not discouraged. The English resolved to commence the siege of Gingee, which was garrisoned by the French. In this operation they failed. But the French were afterwards defeated in an action near Bahoor, two miles from Fort St David; and the two forts of Coveling and Chingleput were reduced by Captain Clive.

Early in January 1753 the two armies again took the field. The French force consisted of 500 European infantry, sixty horse, 2000 Sepoys, and 4000 Mahrattas, commanded by Morari Row. The English had 700 European infantry, 2000 Sepoys, and 1500 horse belonging to the nabob. The two armies, avoiding a general action, watch-

Hindustan- ed each other's movements, when General Laurence was apprised that Captain Dalton, the commandant of Trichinopoly, had only provisions to serve him three weeks. He immediately marched with all his forces to his relief, and being followed by the French, this place became the object of an active contest, from May 1753 till October 1754. We have already stated that the two main points of dispute between the French and English were, first, the succession to the government of the Deccan; and, secondly, to that of the Carnatic; the English, in the first of the disputes, supporting the claims of Nazir Jung, the son of Nizam-ul-Mulk, against Mirzapha Jung, the grandson of the nizam, who was supported by the French. After the death of Nazir Jung, who was killed in the attack of the French upon his camp, Mirzapha Jung succeeded to the subahdarship of the Deccan. He was killed in battle, as already related, by an arrow, when, through the influence of the French commander, M. Bussy, Salabut Jung, the eldest surviving son of Nizam-ul-Mulk, was raised to the vacant throne. But on the death of Nazir Jung, his eldest son Ghazee ad Dien solicited and received from the Mogul the appointment of subahdar of the Deccan; and he appeared at Aurungabad in October 1752, to support his title, at the head of 150,000 troops. The Mahrattas at the same time supported him, and entered the province of Golconda with 100,000 horse. The French general Bussy and Salabut Jung now took the field to meet these armies, with very unequal numbers, when Ghazee ad Dien Khan suddenly died. The Mahratta generals continued the war, but in every encounter they were repulsed with such fearful loss by the French, that they agreed to conclude a peace on the cession of certain frontier districts, to which Salabut Jung willingly agreed.

In the other point in dispute, namely, the government of the Carnatic, the English espoused the cause of Mahomed Ali, the second son of Anwar ad Dien, who was appointed nabob by Nizam-ul-Mulk; and the French supported Chunda Saheb, the heir of the first deputy Sadatullah, appointed also by Nizam-ul-Mulk. On his death they claimed the right of appointment for Salabut Jung, the subahdar, and who, owing his throne to their powerful support, had become a passive tool in their hands. From him M. Bussy had obtained the cession of the four important provinces of Mustaphanagar, Ellore, Rajamundry, and Chicacole, called the Northern Circars. It was in these circumstances that a suspension of arms was agreed upon in October 1754; and on the 26th of December following a provisional treaty was signed at Pondicherry, by which both parties agreed to abstain from interfering in the internal affairs of the country, and to establish their territorial acquisitions on a principle of equality. These terms were entirely in favour of the English, as they left Mahomed Ali nabob of the Carnatic, and obliged the French also to the cession of the four Circars which they had obtained from Salabut Jung. But this treaty was in truth a dead letter; and the moment it was concluded the English, in virtue of their alliance with the nabob, proceeded to reduce to obedience, and to collect the revenues of the districts of Madura and Tinnevely. Here, however, they encountered the Collieries, a fierce tribe inhabiting the hilly districts, who obstinately contested every inch of ground; so that they got abundance of hard blows, and little money, scarcely enough indeed to pay the expense of this plundering adventure. The English, when they made their first conquests in India, having conceived vast ideas of its wealth, set no bounds to their rapacity; they were eager to revel in the spoil of the country, and it was only stubborn facts and repeated disappointments that at last dispelled their dreams of avarice. The French, after remonstrating in vain against this conduct of the English,

proceeded to follow their example, by reducing to obedience and plundering the petty chiefs of the country.

Whilst the two contending armies were maintaining this predatory warfare, the active and enterprising Bussy was in another quarter securing the ascendancy of the French; and, whether in the cabinet or in the field, he still signalized his talents as a warrior and a statesman. Salabut Jung, influenced by his courtiers, had induced the French troops to quit his territories, which order Bussy speedily obeyed, and commenced his march. Finding that he was betrayed, and his progress intercepted by hostile chiefs, he skilfully selected a strong position, which he defended till succours arrived from Pondicherry; when the fickle prince again solicited his alliance, and he was restored to still higher influence than before. Salabut Jung, when he had resolved to dismiss the French troops, had applied to the presidency of Madras for a force to supply their place; and this opportunity of extending their influence would have been eagerly embraced by the English, but their power was now threatened in another quarter, by new and unexpected dangers. Bengal now became the great scene of Indian warfare, in which were concentrated all the resources of the English, from every part of their territories. This extensive province, with Orissa and the province of Allahabad and Berar, was governed, towards the latter end of Aurungzebe's reign, by his grandson Azeem Ooshaun, second son of Shah Aulum, who succeeded to the throne. Jaffier Khan was appointed his deputy; and, as frequently happened during the decline of the Mogul empire, from a deputy he became an independent sovereign. Sujah Khan, who was married to the daughter of Jaffier Khan, was appointed his deputy in the government of Orissa. In this elevated station, a distant relative, Mirza Mahommed, who had once been in the service of Azeem Shah, the second son of Aurungzebe, and had since fallen into poverty, resorted to his court for employment, and he was kindly received. He was followed by his two sons Hadgee Ahmed and Mirza Mahommed Ali, who both obtained employment; and, by their respective talents for business and war, they soon acquired favour and influence in the court of Sujah Khan. Jaffier Khan died in 1725, and was succeeded by Sujah Khan, who supplanted Sereffraz Khan, the destined heir. In 1739 he added to his dominions the province of Bahar, and intrusted its administration to Mirza Mahommed Ali, under the title of Aliverdy Khan. In 1739 Sujah Khan died, and was succeeded by his son Sereffraz Khan, who hated Aliverdy Khan and his brother, and took no pains to conceal it. Aliverdy in the mean time obtaining from the imperial court his nomination to the government of Bengal, collected his troops, and having defeated Sereffraz in a battle in which he was slain, he reduced the country to subjection, and governed it with a regard to justice and humanity very unusual in the East. His reign was, however, one continued scene of commotion, from the irruptions of the Mahrattas, who, though they were often vigorously repelled by Aliverdy and his troops, always returned with new vigour to the invasion of the country. Aliverdy died on the 9th of April 1756, at the age of eighty, and was succeeded by his nephew Suraja Dowla, who had all the vices of a regularly educated prince. His first act was to plunder the sister of Aliverdy Khan, who was reputed to possess great wealth; he gave orders to seize the treasurers of her family, one of whom, however, contrived to escape, and found an asylum in Calcutta. Incensed by the protection given to this fugitive, and jealous besides of the designs and growing power of the Europeans, he took the field on the 30th of May 1756, with an army of 40,000 foot, 30,000 horse, and 400 elephants. The factory at Cossimbazar was seized, and its chief, Mr Watts, and his surgeon, who accompanied him, were retained prisoners. Calcutta was in-

Hindustan vested on the 18th of June. It was feebly defended, and at last a retreat was resolved upon, which was executed so precipitately that numbers were left behind in the fort by the ships and boats. In this trying situation Mr Holwell was chosen commander, who, seeing no chance of a successful defence, proposed a capitulation in a letter which he threw over the ramparts. In the mean time the troops having gained access to the liquor, were so intoxicated as to be incapable of defence, and the enemy entered the fort without resistance. The subahdar appears on this occasion not to have intended any inhumanity to the garrison; and when Mr Holwell was brought into his presence with his hands tied, he ordered them to be loosed, and pledged his honour as a soldier to him and his companions that not a hair of their heads should be touched. But, notwithstanding these assurances, the tragical scene which ensued has no parallel in the annals of human misery. When night approached, it became necessary to secure the prisoners in some place of confinement; and for this purpose the common prison of the garrison was chosen, which was about eighteen feet square, with only two small windows barred with iron. Into this small apartment the garrison, 146 in number, were compelled to enter, by threats of being instantly cut down if they resisted. Their sufferings from want of air were dreadful, and bribes were offered to the guard to obtain a room for them in which they could breathe. But none dared to awake the sleeping tyrant whose prisoners they were; and, after a night of inexpressible horror, only twenty-three out of 146 were found alive in the morning. The presidency of Madras being apprized of these disasters, determined on sending Colonel Clive, who had now returned to India, to Bengal, with as large a force as could be collected; and an armament accordingly sailed from the roads of Madras on the 16th of October, consisting of five king's ships under Admiral Watson, besides transports having on board 900 European troops and 1500 Sepoys. Having arrived in the Ganges on the 20th of December 1756, they found the fugitives at Fulta, a town at some distance from Calcutta, down the river. The first operation was against a fort; and Clive, lying in ambush to intercept the garrison, was himself surprised by the troops of Suraja Dowla, and, after a conflict long doubtful, extricated himself from the dangers that surrounded him, by that admirable presence of mind which never deserted him in the hour of danger. On the 2d of January 1757, the armament arrived at Calcutta, which surrendered after a cannonade of two hours. Almost the whole property of the Company was recovered, having been preserved for the subahdar; but the houses of individuals were all plundered. On the 10th of January, the city of Hooghly, about twenty-three miles higher up the river, was attacked, and a breach being made, and an assault begun, the garrison sought safety in flight. In the mean time, intelligence was received from Europe of the commencement of hostilities between France and England, which placed in a very critical situation the Company's settlements in Bengal. The English were already engaged in a war with a powerful prince, who had a formidable army in the field; and a coalition with the French, who could muster 300 European troops, with a train of artillery, would have overwhelmed their infant power. Happily for them, the French were desirous of a neutrality, and refused the alliance of Suraja Dowla, who advanced with his whole army and surrounded Calcutta. The perils which now environed the English roused the daring spirit of Clive, and he resolved to surprise the enemy's camp before daylight. But this bold enterprise failed in the execution; the troops suffered severely, and a thick mist augmented the causes of confusion; still the boldness of the design produced the desired effect, by alarming the subahdar, and inclining him to peace. He accordingly concluded a treaty

with the English, by which he agreed to restore to the *Hindustan* Company their factories, and all their former privileges; to make compensation for the losses they had suffered, and to permit them to fortify Calcutta. The danger which now threatened the Company being averted, the active mind of Clive was directed to other objects; and as war was now declared between France and England, he resolved, in return for the neutrality observed by the French when the English were involved in hostilities with the nabob, to attack their settlement at Chandernagur. This scheme was opposed by the nabob, and was disapproved by the council and Admiral Watson. Reinforcements, however, arriving, the attack was resolved on, and the English force advanced. The French defended themselves with gallantry; and the nabob, alarmed, began to put his army in motion. But the fort was in the mean time reduced by the irresistible fire of the ships. The nabob viewed these proceedings with secret alarm and resentment, and refused to give up the other French factories and subjects in his dominions. He even afforded protection to the fugitives from Chandernagur, and evinced his decided hostility to the English, until he received intelligence of the progress of the Afghans in the north, when he became extremely desirous of peace. But the English were now dazzled with other schemes, and Clive strongly insisted on the rooted disaffection of the nabob to the English, and on the necessity of dethroning him, and of elevating Meer Jaffier, who had married the sister of Aliverdy Khan, to the throne in his stead. It is unnecessary to dwell particularly on the dark intrigues by which this scheme was carried into effect. It was concerted that, for the destruction of Suraja Dowla, the English should take the field; and that Meer Jaffier, who still had a considerable force under his command, should join them at Cutwa. The English, having arrived at Cutwa, found not their expected ally Meer Jaffier; only an intimation from him that he could not join them before the day of battle, but that during the action he would desert the nabob and join his enemies. This intelligence damped the ardour of the English, and it was deemed hazardous to advance further, and to risk a battle, when, "if defeat ensued, no one would return to tell it." But caution at length gave way to bolder counsels; the army crossed the river a little past midnight, at Plassy. Here also was intrenched the army of the subahdar, consisting of 50,000 foot, 18,000 horse, and fifty pieces of cannon. The English force consisted of about 1000 Europeans and 2100 Sepoys. During the battle, which took place on the 23d of June 1757, Meer Jaffier was observed moving off with his troops. Clive, now assured of his intentions, ordered an attack; the subahdar's army was dispersed, and he himself fled from the field with only 2000 attendants. Arriving at his palace, he found no friend on whom he could rely; and disguising himself as a fakir, he escaped, with a favourite concubine and a single eunuch, intending to make his way to the French. But he was discovered at Raje Muhl, dragged back to Moorshedabad, and placed under the custody of Meer Jaffier's son, who gave orders for his assassination. On the 25th of June, Clive arrived with his victorious army at Moorshedabad. Meer Jaffier took possession of the capital, and on the 29th was installed into his high office, in the presence of the rajahs and grandees of the court. Enormous sums were exacted from Meer Jaffier as the price of his elevation; for the Company 10,000,000 rupees, as a compensation for losses; 5,000,000 rupees to the English inhabitants, 2,000,000 to the Indians, and 700,000 to the Armenians; for the squadron 2,500,000; an equal sum for the army; and for the members of the council, which they actually received, namely, for Mr Drake the governor, and Colonel Clive, 280,000 rupees each; and Mr Becker, Mr Watts, and Major Kilpatrick, 240,000 each; the whole amounting to

Hindustan. L.2,697,750. The English, deluded by their avarice, still cherished their extravagant ideas of Indian wealth; nor would they listen to the ungrateful truth. But it was now found that there were no funds in the Indian treasury to satisfy their inordinate demands. They were in the end obliged to be contented with one half the stipulated sum, which, after many difficulties, was paid in specie and in jewels, with the exception of 584,905 rupees.

The Company's servants, whilst their force was so actively engaged in Bengal, were anxious to remain quiet in the Carnatic. In endeavouring to collect the land-rents of the nabob Mahommed Ali, they, however, undertook the reduction of Madura and Tinnevely; but with no great success, Captain Calliaud being repulsed in an assault on the fort of Dindigul, and another division of the English force at Nelore. The French now resolved to take advantage of the division of the enemy's force, and to strike a decisive blow; and having collected every soldier that could be spared from garrison duty, they suddenly with their whole force invested the fortress of Trichinopoly. On the 14th of May 1757, Captain Calliaud being apprized of their design whilst he was besieging Madura, instantly began his march for the relief of this important place. It was surrounded by an army five times as numerous as his own force, and every avenue to it was strongly guarded. But the English commander, well acquainted with the localities, took his route through a large plain consisting of rice fields covered with water, which was deemed impassable by the French, and therefore left unguarded; and thus he entered the fort. The French general, disconcerted by this successful stroke, drew off his forces and returned to Pondicherry. Having thus secured Trichinopoly, Colonel Calliaud resumed the siege of Madura, and being repulsed, with heavy loss, in an attempt to storm, he turned the siege into a blockade. He was at last received into the town on payment of 170,000 rupees. In the mean time Bussy was eminently successful in all his operations within the Circars; he reduced the fortress of Vizigapatam held by the English; and, after some uncertainty in the unstable councils of Salabut Jung, he finally established an entire ascendancy over that prince and throughout the Deccan.

On the commencement of the war between France and England in 1756, the French ministry resolved to send a formidable armament to India; and the Count de Lally, an Irishman, who had left his country with James II., and who had distinguished himself in the battle of Fontenoy, was appointed commander-in-chief of all the French forces in India. Count Lally, with his armament, arrived on the coast of Coromandel on the 25th of April 1757. The English Admiral Pococke had been previously joined by a squadron of five ships of war, and an engagement took place between the two fleets, which terminated to the advantage of the English. Another action took place after the ships were refitted, with the same result. But neither was decisive; and, notwithstanding these successes at sea, the French had a preponderating force on shore, which consisted of 2500 Europeans, and the same number of Sepoys. With this force they commenced, on the 17th of May 1758, the siege of Fort St David. The place capitulated on the 1st of June, and its fortifications were razed. Devicottah surrendered on the 7th of June, and the English now fully expected that Lally would next lay siege to Madras. But the want of money embarrassed all his operations; and in order to relieve his necessities, he undertook the siege of Tanjore. A breach was effected, and preparations made for an assault, when the arrival of the English fleet, after another engagement with the French before Carical, whence the besieging army derived all its supplies, determined Lally to raise the siege; and, after a disastrous retreat, his shattered force arrived on the 28th at Carical. The hostile fleets again encountered on the 2d of August,

and after an hour's fighting the French bore away, and were soon beyond the reach of shot. Lally, to relieve his pecuniary wants, which were only augmented by the unsuccessful siege of Tanjore, now prepared for an expedition against Arcot. This place capitulated on the 4th of October, and the French force proceeded forthwith to Chingleput, about forty-five miles south-west of Madras. But the English, aware of its importance, reinforced the garrison, and Lally did not attempt its reduction. His situation was beset with difficulties, from the total want of money and all necessary supplies; and in order to retrieve his affairs, he resolved on the bold enterprise of laying siege to Madras. His force consisted of 2700 European troops, and 4000 Indians. In this attempt he signally failed, with great loss, after continuing the siege from the 16th of December till the middle of February 1759; and this disaster greatly contributed to depress his spirits, and to abate his vain confidence in his own schemes. The French army retreated in the direction of Conjeveram, whither they were followed by the English. Here the two armies manœuvred for some time in sight of each other, when the English marched upon Wandewash, and afterwards on Conjeveram, which they took by assault. On the 28th of May 1759 both armies went into cantonments.

In the end of September the campaign was resumed with spirit by the English, who laid siege to Wandewash, but were repulsed in all their attempts to carry it by storm. But it was attacked and taken on the 29th of October, as was also Caranjoly on the 10th of December. Bussy had been recalled from the Carnatic, where he had exerted himself so advantageously for the French cause, and he joined the army the day after the repulse of the English. Lally had resolved to divide his force; with one part to collect the rents of the southern, with the other to protect what belonged to the French in the northern districts. He contrived by skilful manœuvring to amuse the English, and in the mean time he surprised and took Conjeveram, and thence proceeded to the attack of Wandewash. The English army under Colonel Coote now approached, consisting of 1900 Europeans, 2100 Sepoys, 1250 black horse, and twenty-six field-pieces; and the French general determined to try the issue of a general battle. The French, including 300 marines and sailors, consisted of 2250 Europeans, and 1500 Sepoys. The battle commenced on the 22d of January 1760, at eleven o'clock, and terminated in the total defeat of the French, who lost nearly all their cannon. Lally retreated to Chittapet, about twenty-eight miles from the field of battle, and afterwards to Gingee and Valdore. The victorious general resolved on the reduction of Arcot, and having previously taken Chittapet, he arrived before that fortress upon the 1st of February, and upon the 9th the garrison capitulated. The affairs of the French now rapidly declined. The English had acquired a decided superiority in the field, and fortress after fortress fell into their hands; Tinery on the 1st of February, Devicottah about the same time, and Trincomalee on the 29th. To complete this train of misfortunes, Admiral Cornish arrived at Madras with six men of war; and there being no longer a hostile fleet in the Indian Seas, he readily agreed to co-operate with the land forces. The consequence was, the reduction of Carical on the 5th of April, of Valdore on the 15th, of Chittambaram on the 20th, and about the same time of Cuddalore; and on the 1st of May the whole French force was shut up in Pondicherry, which was their last remaining hope in India, whilst the English forces encamped within four miles of the town. It was in the beginning of September that the English laid formal siege to this place. The batteries were opened about the beginning of December, and it capitulated on the 15th of January 1765; and thus terminated forever the power of France in this quarter of the world.

Hindustan.
Elevation
of Meer
Cossim to
the throne.

Hindustan.
Disputes
with Meer
Cossim.

Whilst the English were thus establishing their ascendancy in the south of India, and also in Bengal, Meer Jaffier, the new nabob, was wholly unable to answer the exorbitant demands of the Company's servants, who, still deluded with the idea of eastern riches, refused to abate one iota of their demands. His situation thus became extremely difficult. His treasury was exhausted, his people impoverished, he had no funds for the expenses of government, and still less for the demands of his rapacious allies. He was compelled to extort money from his ruined subjects by cruelty and terror. He himself, and his son Meeraus, soon fell into universal odium and contempt, from their merciless exactions, and the weakness, negligence, and disorder of their administration. The troops mutinied for want of pay, the rajahs and nobles were discontented, and rebellions multiplied throughout his dominions. The nabobs of Oude and Allahabad entered into a dangerous confederacy with the eldest son of the Emperor Aulungeer II. for supporting his claim to the imperial throne, and to the subordinate provinces of the Mogul empire; and their combined forces advanced to the invasion of Bengal. But European troops, though few in number, and European counsels, proved an overmatch for the ill-organized masses of Indian cavalry; they were accordingly defeated in every encounter, and Meer Jaffier secured in the undisputed possession of the throne. Lord Clive, who bore so conspicuous a part in these transactions, resigned the government in February 1760; and by his influence Mr Vansittart was raised to be president or governor of the council, consisting of from nine to twelve persons, by a majority of whom the affairs of the Company were now administered. The English, by their prompt and decisive measures, had defended the nabob against foreign aggression; and he had now to defend himself against their own domestic treason, which proved to be the more serious danger. In raising him to the sovereignty they were actuated by purely interested views; and being disappointed, they entered into schemes for dethroning him, and for again selling the throne to the highest bidder. Meer Cossim, married to his daughter, was the person now pitched upon to supply his place. The conditions were, that he should assign to the Company the revenues of the three districts of Burdwan, Midnapore, and Chittagong; that he should pay the balance due by Jaffier; and besides, make a present of five lacs of rupees for the war in the Carnatic. Mr Vansittart now proceeded, with a body of troops under Colonel Caliaud, to persuade, or rather to compel, the nabob to abdicate the sovereignty. At day-break his palace was surrounded with troops, and a letter was sent to him explaining the views of the English, which filled him with rage. He treated with disdain the assurances of safety for his person, and that a reform in his government under his son-in-law as his deputy was all that was proposed; and he finally preferred, rather than sway a barren sceptre, to retire to Calcutta under the protection of the English. Against the deposition of Meer Jaffier several members of the council protested, and this spirit of opposition for a considerable time distracted the English councils. The party who had elevated Meer Cossim highly commended his whole administration, which their opponents were equally solicitous to criticise and to condemn. Meer Cossim was a person of quite a different stamp from his weak and indolent predecessor. By the assistance of his new allies he cleared his dominions of all invaders, and strengthened his frontiers; he reduced the rajahs or independent Indian chiefs, who had rebelled against Jaffier, obliging them to pay the usual tribute, by which means he repaired his finances; he introduced order and economy into his whole administration, and by regular pay secured the discipline and fidelity of his troops. But his conduct was viewed in a sinister light by the members of the council who opposed his elevation; and four of

them being dismissed by the directors at home for insubordination to their authority, this faction became the majority; and the most violent amongst them, Mr Ellis, was sent to superintend the factory at Patna, the residence of the nabob, where his whole conduct was one continued insult and defiance of his authority. He made no scruple of seizing and punishing the officers of the nabob, who acted under his express sanction; sometimes throwing them into prison, or sending them in chains to Calcutta, to be there punished at the discretion of the council. To these were added other and more extensive injuries; and at length the usurpations and tyranny of the English were carried to such a height, that the authority of the government either became a mere name, or an instrument of violence and extortion in the hands of the Company's servants. The causes of these disorders, which led to a new and important revolution in the political condition of India, we shall now briefly explain.

In India the transit of goods from one place to another was, under the native governments, subjected to a tax; and upon all the roads and navigable rivers toll-houses were erected, where this tax was paid. These toll-houses were multiplied, to the great inconvenience and oppression of the internal trade; and as the duties varied in different places, there was here a wide field for abuse, and the traders were frequently oppressed by the arbitrary extortions of the collectors. The East India Company had, at an early period, procured a firman, which exempted from all internal duties, both the goods which they imported from Europe, as they passed into the interior, and those which they purchased in the interior in their passage to the sea. They were, in fact, protected by a certificate signed by the president or chiefs of the factories, called a *dustuck*, and shown at the toll-houses or chokeys through which they passed. The servants frequently endeavoured to abuse the Company's privilege, by claiming an immunity from taxation for all their own goods, which they had neither imported nor were to export, but which, for the internal supply of the country, they were transporting from one place to another. The subahdars of Bengal, whilst they retained their power, restrained the Company's privilege within its appointed limits, and steadily refused to exempt the trade of its servants from duties to which all others were subject. But when, by the elevation of Meer Jaffier to the throne, the English acquired the undisputed ascendancy, they broke through all the equitable restraints imposed upon them; in every district, in every market and village, they dealt in rice, the common food of the people, paddy, betel-nut, oil, fish, straw, bamboos, &c. and, without scruple, used the Company's passport to screen these articles from internal duties; and so dreaded was the English name, that the toll-house keepers no longer exacted the public dues on the transit of their goods through the country. In some cases where the demand was made and the goods stopped, the toll-keeper was arrested by a party of Sepoys, and carried prisoner to the nearest factories; and he was frequently exposed to even greater severities, being tied up and lashed. The confusion into which the country was thrown by the injustice, the violence, and the cruelty, of those rapacious intruders, can scarcely be imagined. The native merchant, still burdened with the heavy duties, which were rigorously levied on him, was undersold in every market; and the Company's servants in a short time engrossed the whole commerce of the country. The unhappy natives were subjected to various other oppressions. It was a common practice of the Company's servants to defraud them both in purchase and in sale; to force goods from them at a lower, and to compel them to buy their own at a higher rate than the market price. Nor did the ordinary tribunals afford any protection against their injustice; a band of foreign adventurers, to call

Cause of
these disputes,
and oppression
of the
country.

Hindustan. them by no harsher name, had usurped the sovereign power, which they rendered wholly subservient to their own schemes of enriching themselves at the expense of the country.¹

Just conduct of Meer Cossim.

Meer Cossim, the ruler who had been set up by the Company, was extremely displeased with the conduct of their servants, and he represented in the strongest terms to the president and council the enormities to which the private trade had given rise. But the majority of the council were too deeply interested in these enormities to be moved by this just appeal of the sovereign in behalf of his oppressed people. They all participated more or less in the profits of the private trade, and they had no disposition to part with or to restrict this lucrative abuse. They even refused to pay nine per cent. of transit duties upon their goods, though this rate was far inferior to that paid by the native traders; and all that they would agree to was, out of their own liberality and free choice to pay a duty of two and a half per cent. on salt alone. The nabob, when he heard of the proceedings in council, and of the injurious treatment of his officers for duly executing his orders, was naturally filled with indignation; and he came to the resolution of abolishing all internal duties. There could not possibly have been a more moderate or equitable measure. It gave freedom and equality to all parties; it threw down at once all the restraints to fair and open competition, and gave to the Company's servants the unlimited freedom of trade. This just and liberal policy, however, was far from corresponding with their views, and it excited amongst them the most violent clamours. They were discontented at losing so fair an opportunity of amassing enormous wealth. Their conduct, as Mr Mill justly observes, furnishes one of "the most remarkable instances on record, of the power of interest to extinguish all sense of justice, and even of shame." They first insisted on an exemption for themselves from all internal duties, now they cried out in the rage of disappointed avarice against the extension of the same privileges to the inhabitants; and thus they reversed all the usual maxims of fair policy, in seeking immunities for foreigners which were refused to natives.

Arbitrary conduct of the Company's servants.

The conduct of Meer Cossim, in claiming justice for his oppressed subjects, was highly displeasing to the majority of the council. The exaction of legal dues upon English goods was represented as a violation of the Company's rights, and as evidence of a design to expel them from the country; and, for this new species of treason against the offended majesty of usurped power, it was resolved to depose him, and to replace Meer Jaffier on the throne, as nominal ruler of Bengal, on the well-understood condition of subservience to their views. A treaty was concluded, confirming the immunity which they claimed from all internal duties, with the exception only of two and a half per cent. on the article of salt, whilst those duties were re-imposed on the goods of all other merchants. Large presents were bargained for, and other payments to a great amount, as compensation for losses alleged to have been sustained by the Company's servants, in the course of their illicit interference in the domestic trade. These sums, which at first were estimated at ten, but soon afterwards mounted up to fifty-three lacs of rupees, equal to about L.625,000, were rigidly exacted, whilst large payments to the Company were still undischarged, and the public finances were sinking under the burden of an expensive war, great sums having been borrowed by the Company from its servants, at an interest of eight per cent., and, with all these aids, sup-

plies were wanting both for the war and for the investment, the Company's ships frequently returning, in consequence, half loaded to Europe. Meer Cossim, on his side, saw plainly that matters were fast approaching to the extremity of war, and he made preparations for the contest. He transferred his capital from Muxadabad, as being too near Calcutta, and under the inspection of the English, to Mongheer, a place 200 miles farther up the Ganges, which he fortified in the best and most expeditious manner. He introduced European discipline among the troops, and he recruited his ranks with all the Armenian, Persian, Tartar, and other soldiers of fortune whom he could collect, and especially with such wandering Europeans or Sepoys as had borne arms in the English service. He substituted European muskets for matchlocks, and formed a train of artillery.

Hostilities commenced sooner than was expected, with the surprise and capture of Patna by Mr Ellis; a violent and rash measure, disapproved by several members of the council. The nabob immediately gave orders to stop several boats laden with arms that had been seized, and released on the representation of the English. Resistance was made, and in the course of the struggle which ensued, Mr Amyatt, a member of the council, and several other Englishmen, were slain. The contending armies now hastened to take the field; and Meer Cossim was overwhelmed by one unbroken series of disasters, which terminated in his dethronement and flight. A division of his army, which had advanced for the protection of Moorshedabad, was totally defeated on the 19th of July, by the English army, which consisted of 650 Europeans, 1200 Sepoys, two troops of native cavalry, and was afterwards joined by a battalion of Sepoys and a hundred Europeans. In advancing to the capital, Major Adam found the enemy strongly posted, with intrenchments fifteen feet high, defended by a numerous artillery. These were stormed, and the city of Moorshedabad was entered by the conquerors. The English, pushing forward, encountered the Indian army on the 2d of August 1763, consisting of 20,000 horse and 8000 foot, in the plain of Gheriah, near Sootie. They resembled European troops in clothing and accoutrements, and in their division into brigades; and the battle that ensued was obstinately contested for four hours. But the discipline and steadiness of the European troops finally triumphed, and the enemy fled, leaving all their cannon behind them. From this time the English were no longer opposed on equal terms in the field. It was only in strong positions and intrenchments that the enemy made a stand. A strong intrenchment at Oodwa was carried on the 5th of September, after it had detained the English for nearly a month; and Mongheer, the last stronghold of Meer Cossim, capitulated, on which he fled into the dominions of the nabob of Oude, and afterwards into the Rohilla country. Irritated by his misfortunes, the nabob wreaked his vengeance on the unhappy English prisoners who were in his power. He had formerly put to death several Hindus of rank who were thrown into prison on account of their wealth; and he now gave an order for the execution of about two hundred English, who had been taken at Patna; amongst others, of Mr Ellis, who had formerly tyrannized over and insulted him, and Mr Lushington, also high in the Company's service. They were invited to an entertainment, and, according to the odious maxims of eastern treachery, were barbarously murdered. A German of the name of Sumroo was the chief agent in this scene of cruelty. Dr Fullarton, who had gained favour

Hostilities with Meer Cossim.

Defeat and flight to Sujah Dowlah.

¹ See Ninth Report of the House of Commons on India Affairs; also a Letter of Meer Cossim, dated Backergunge, May 25, 1763, which states that the inhabitants who refused to sell to the Company's servants were flogged or confined.

Hindustan. by his medical services, was the only Englishman who escaped.

Meer Cossim was received in the most friendly manner by Sujah Dowlah, the nabob of Oude, who was far from being well disposed to the English. He considered them as rapacious usurpers, the natural enemies, as they fatally proved to be, of Indian independence, and who, under pretence of commerce, aspired to the dominion of the country. In reply to a letter from the English, threatening, that if he assisted the nabob of Bengal, they would carry the war into his own country, he remonstrated with them on their ambitious views, and on account of the disturbances which they had created in the country; and he added, "to what can all these wrong proceedings be attributed, but to an absolute disregard of the court (of Delhi), and to a wicked design of seizing the country to yourselves. If these disturbances," he continues, "have arisen from your own improper devices, deviate from such behaviour in future; interfere not in the affairs of government; withdraw your people from every part, and send them to their own country; carry on the Company's trade as formerly, and confine yourself to your own commercial affairs." To these reasonable remonstrances, which were repeated in another letter to Major Carnac, the president and council were so far from listening, that they determined upon commencing an immediate and offensive war against him.

War with, Major, afterwards Sir Hector Munro, who had arrived from Bombay with a reinforcement, was appointed to the command. His first care was to repress the mutinous spirit which had of late prevailed among the troops, and this he effected by the severe measure of blowing away twenty-four of the ringleaders from the mouths of cannon. He then advanced, with a force of 6215 Sepoys and 856 Europeans, towards the Saone, where the enemy, to the number of 40,000, with a train of artillery, were intrenched in front of the village and fort of Buxar. On the 22d of October 1764, a battle took place, in which the Indian army was completely overthrown, with the loss of about 2000 men. On the side of the British eighty-seven Europeans and 712 Sepoys were either killed or wounded. Major Munro followed up his success, though in two attempts to storm the fortress of Chanda he was repulsed with loss, and it was only through the mutiny of the garrison that it was at length taken by Sir R. Fletcher, who had succeeded to the command. Lucknow, the capital of Oude, was also occupied by the battalions of Sepoys; the fortress of Chunar was attempted, though without success, and that of Allahabad surrendered. Sujah Dowlah was abandoned in his reverses by his ally the Mogul, who concluded a treaty with the English. But he did not yet despair of his fortunes; and having received the aid of a Mahratta force, the combined armies encountered the English on the 3d of May 1765, when they were defeated; and Major Carnac, again attacking them at a place called Calpi, they were overthrown, and driven with precipitation across the Jumna. The vizir, Sujah Dowlah, seeing no hope of retrieving his affairs, resolved to trust entirely to the generosity of the English; and on the 19th of May he surrendered to Major, now General Carnac. The final settlement of terms was reserved for Lord Clive, who had arrived in Bengal, with full powers from the directors, as governor, to regulate all their complicated concerns, whether of sovereignty or of trade. It was agreed that, with the exception of Allahabad and Corah, he should still retain his dominions, which he was judged more capable of defending than the Mogul emperor, to whom they had been promised. For this concession the vizir agreed to pay fifty lacs of rupees as the expenses of the war; but he remonstrated so earnestly against the establishment of factories in his dominions, or any per-

mission to trade free of duties, as the certain cause of Hindustan. trouble, that all such propositions were abandoned. He agreed not to molest Bulwunt Sing, who held the zemindaries of Benares and Gauzeepore, and who had assisted the English in the late contest, and never to afford an asylum to Meer Cossim, or the German soldier Sumroo. With regard to the Mogul emperor, he was told, that of the thirty lacs of annual tribute due to him from the subahdars of Bengal, not a rupee would ever be paid; that twenty-six lacs of rupees, which had been assigned him as the revenue of these provinces, would be continued; and that he should receive possession of Corah and Allahabad. In return, the Company received the imperial firman, dated the 12th of August 1765, granting the duannee, or the right of collecting the revenues of Bengal, Bahar, and Orissa, in which is implied, according to the laws and constitution of the Mogul empire, the right of sovereignty; and thus was this body of merchants constituted in form, as well as in substance, the rulers of a vast empire.

Company receives the sovereignty of Bengal.

To this issue affairs had been evidently tending for some time past. Meer Jaffier, worn out with anxiety and indulgence, died in the beginning of the year; and Jaffier, his son, was chosen his successor by the Company's servants. From each successive sovereign it was the custom of the electors to exact not only a large donation, but also an extension of power and privileges, so that the native ruler was at length left in possession of little more than a nominal authority. It was now resolved by the English that they should take upon themselves the whole charge of defending the country, and that they would only allow the nabob a few troops for the sake of parade, or for other necessary purposes; whilst, in regard to the civil government, he was to choose a deputy, with the advice of the governor and council, on whom the whole internal administration of the country should be devolved. So completely had the government fallen under the control of the English, that the accountants of the revenue could not be appointed without their approbation. In the mean time the directors were distracted by the contradictory reports of their affairs which they received from India; and it was because they were alarmed by the expensive wars so readily undertaken by their servants, by their rapacious proceedings in regard to the private trade, and by the general embarrassment of their affairs, that they had resolved to appoint Lord Clive to the supreme government of Bengal, conferring on him and a select committee of four, full authority to act and determine all matters, without any dependence on the council; of which authority they were not slow to avail themselves upon all occasions. They also sent along with him a strong representation against the rapacity and tyranny of their servants. In a letter to the governor and council they observe, "Your deliberations on the inland trade have laid open to us a scene of the most cruel oppression." "The poor of the country," they continue, "who used always to deal in salt, betel-nut, and tobacco, are now deprived of their daily bread by the trade of the Europeans, whereby no kind of advantage accrues to the Company, and the government's revenues are greatly injured." The directors accordingly issued the most peremptory instructions for the prohibition of the inland trade of salt, betel-nut, and tobacco, or rather of the monopoly held by the Company's servants, by which the country was so cruelly oppressed. The practice of receiving presents from the native rulers and princes, which had been carried to a great extent, was also prohibited. At a general meeting of proprietors, however, it was urged, in opposition to those wise and salutary restrictions, that the "servants of the Company in India ought not to be deprived of such precious advantages, which enabled them to revisit their native country with independent fortunes."

Maladministration of the Company's servants.

War with, Major, afterwards Sir Hector Munro, who had arrived from Bombay with a reinforcement, was appointed to the command. His first care was to repress the mutinous spirit which had of late prevailed among the troops, and this he effected by the severe measure of blowing away twenty-four of the ringleaders from the mouths of cannon. He then advanced, with a force of 6215 Sepoys and 856 Europeans, towards the Saone, where the enemy, to the number of 40,000, with a train of artillery, were intrenched in front of the village and fort of Buxar. On the 22d of October 1764, a battle took place, in which the Indian army was completely overthrown, with the loss of about 2000 men. On the side of the British eighty-seven Europeans and 712 Sepoys were either killed or wounded. Major Munro followed up his success, though in two attempts to storm the fortress of Chanda he was repulsed with loss, and it was only through the mutiny of the garrison that it was at length taken by Sir R. Fletcher, who had succeeded to the command. Lucknow, the capital of Oude, was also occupied by the battalions of Sepoys; the fortress of Chunar was attempted, though without success, and that of Allahabad surrendered. Sujah Dowlah was abandoned in his reverses by his ally the Mogul, who concluded a treaty with the English. But he did not yet despair of his fortunes; and having received the aid of a Mahratta force, the combined armies encountered the English on the 3d of May 1765, when they were defeated; and Major Carnac, again attacking them at a place called Calpi, they were overthrown, and driven with precipitation across the Jumna. The vizir, Sujah Dowlah, seeing no hope of retrieving his affairs, resolved to trust entirely to the generosity of the English; and on the 19th of May he surrendered to Major, now General Carnac. The final settlement of terms was reserved for Lord Clive, who had arrived in Bengal, with full powers from the directors, as governor, to regulate all their complicated concerns, whether of sovereignty or of trade. It was agreed that, with the exception of Allahabad and Corah, he should still retain his dominions, which he was judged more capable of defending than the Mogul emperor, to whom they had been promised. For this concession the vizir agreed to pay fifty lacs of rupees as the expenses of the war; but he remonstrated so earnestly against the establishment of factories in his dominions, or any per-

Hindustan. This reasoning convinced the majority of the proprietors, and a recommendation was moved in consequence to the directors, to re-consider their resolution in regard to the private trade. The governor and council were therefore instructed, after consulting with the nabob, to form a "proper and equitable plan for carrying on the inland trade." (Mill's *British India*, vol. ii. p. 217.) In other words, they were to contrive how they could oppress the country, and yet adhere to the rules of equity. This transaction places in a very strong light the corrupt nature of the Company's government. It was admitted on all hands that it was by extortion and rapine, that is, by compelling the oppressed inhabitants both to purchase and sell at prices fixed by the Company's servants, that such profits were gained, and that they were enabled to return to Europe with enormous accumulations of ill-gotten wealth. It was, indeed, as we have just seen, acknowledged by the directors, that the poor of the country were deprived of their daily bread by the trade of their European servants, who monopolized every profitable channel of business; yet, with these facts before them, we find the sovereigns of India delivering over their oppressed subjects to the rapacity of their servants, for the avowed purpose of enriching them with the spoils of the country.

Lord Clive assumed the supreme power in India in May 1765. At this period the servants of the Company, in defiance of the peremptory orders of the directors, still persisted in all the ruinous practices connected with the inland trade; and instead of abolishing these, and thus remedying some of those abuses of which he so violently complained, Lord Clive entered into a partnership for the monopoly of salt, of which large quantities were accordingly purchased, and sold for a profit of forty-five per cent., which was divided amongst three of his own dependents, his secretary, surgeon, and another friend, for whom he wished, as he expresses it, to realize a fortune. The plan of a more extensive monopoly, including salt, betel-nut, and tobacco, the chief articles of consumption in the country, was afterwards devised to be carried on exclusively for the benefit of the superior servants of the Company, amongst whom the profit, after setting apart L.100,000 per annum to the Company, was to be divided according to their rank in the service. At the time this corrupt scheme of monopoly was established, the select committee were in possession of peremptory orders from the directors for its abolition; but these orders, under various pretences, they delayed to carry into execution till September 1768.

Although the ascendancy of the English had for some years been thoroughly established in Bengal, and although they were formally invested in 1765 with the sovereignty of the country, its affairs were still administered in the name of the native prince, and according to the forms and policy of the ancient constitution. Justice was still dispensed by the native courts, and by the nabob's officers; the revenues still flowed through the same channels into the public exchequer; and all transactions with foreign powers were carried on under the same authority as formerly. But such was the increasing power of the English, that the government, as far as regarded the protection of the people, was dissolved. Neither the nabob nor his officers dared to offer any opposition to their sovereign will; and the tribunals of justice, far from being a protection to the oppressed, became subservient to the rapacity of the Gomastahs, or Indian agents, employed by the Company's servants, and were converted by them into most efficacious instruments for plundering the people, and for punishing the wretched victims of their oppression if they dared to complain, and if they did not patiently submit to be fleeced and trampled upon by their foreign masters. The native tribunals had no power to afford protection, whilst the English had no legal authority beyond the presidency,

either over the natives or over their own subjects; and hence the inhabitants lay entirely at the mercy of the Company's servants. Nor need we wonder that, during this period of anarchy and disorder abroad, the embarrassments of the Company's affairs continued to increase, even during the peaceable administration of Mr Verdst, who succeeded Lord Clive as governor when he left Bengal in February 1767. The Indian revenues were indeed large, but they were plundered by their servants. Lord Clive and the first adventurers were enriched by the presents or bribes of the native rulers. These they were now prohibited from accepting. "It was expedient for them," says Clive, "to find out some other channel, the channel of the civil and military changes. Every man now who is permitted to make a bill makes a fortune." In lieu of the enormous gains which accrued from the monopoly of salt and of other articles, the trade which the directors, early in 1768, sent peremptory orders to lay open, and also of one eighth per cent. of the revenues given to the governor, as a compensation for his share of the salt monopoly, the Company granted a commission of two and a half per cent. on the revenues. This sum was to be divided into a hundred shares, and to be distributed amongst the civil functionaries of the Company, and the military officers, according to their rank.

Whilst the local rulers of India were thus enriching themselves, their masters were reduced to great pecuniary distress. But, in the midst of all their embarrassments, the most flattering accounts of their affairs were circulated in Europe; and the directors and proprietors lent a willing ear to these golden promises, of which their servants were always liberal. The splendid acquisition which the Company had made of the territorial revenues of Bengal, the political events in which they had been involved, and the immense fortunes with which a few individuals had returned to Europe, confirmed the general delusion, and inflamed the impatience of the proprietors of East India stock to participate in the inexhaustible treasures of their new dominions. In pursuance of these views, the dividend on their stock was raised from six to ten per cent.; and India stock rose to 263 per cent. A higher dividend was called for, and it was in vain that the directors represented the heavy debts of the Company, and the general embarrassment of their affairs. The proprietors refused to listen to such disagreeable representations, and at a general court they voted a dividend of twelve and a half per cent. for the year 1767. The attention of government being now directed to the Company's affairs, this vote was rescinded by act of parliament, and the dividend limited to ten per cent.

In the mean time, every day's experience was refuting the fallacious expectations of annual treasures from India. So far from possessing any surplus revenue, the servants were involved in debt for the current expenses of their government; they drew largely on the directors, but they remitted little; and the whole of this complicated scheme of trade and sovereignty laboured in consequence under such pecuniary difficulties, that the directors, to avert a public bankruptcy, were compelled to apply to the bank for a loan of L.400,000, and afterwards of L.300,000. In consequence of this state of things, so different from the pleasing fancies of unbounded wealth, with which the proprietors of the Company and the country at large had been amused, great discontent and a violent clamour was raised against the Company's servants in India, who by their profusion or corruption had failed to realize those golden dreams. The situation of the Company was at length brought under the consideration of parliament by the minister, who introduced two acts for the regulation of their affairs. The first of these was intended to relieve the pecuniary embarrassments of the Company, and provided that the sum

Embarrassments of the Company at home.

Hindustan. of L.1,400,000 per annum, at four per cent. should be lent to them, and that the stipulated annual payment of L.400,000 from the territorial revenue should not be required till the discharge of this debt; the dividend not to exceed six per cent. till the discharge should be accomplished, and not to exceed seven per cent. till the bond debt should be reduced to L.1,500,000. Other clauses related to the appropriation of the surplus revenue, which was always fondly hoped for, but never received. The other act, which was heavily complained of as an infringement of the Company's rights of sovereignty, as the first was said to be an invasion of their rights of property, raised the qualification to vote in the court of proprietors from L.500 to L.1000; gave two votes to every proprietor possessed of L.3000; three votes to those possessed of L.6000; and four votes to those possessed of L.10,000; and only six directors, instead of twenty-four, the whole number, were to be annually elected; and the administration of the provinces of Bengal, Bahar, and Orissa was to be vested in a governor-general with an annual salary of L.25,000, and four councillors with a salary of L.8000 each. The other presidencies were rendered subordinate to that of Bengal; and a supreme court of judicature was established at Calcutta, consisting of a chief-justice with L.8000 a year, and three other judges with L.6000 a year, appointed by the crown. The first governor-general and councillors were to be appointed by the king; and all the political correspondence of the Company with India was to be laid before the ministry. These acts received the royal assent on the 21st of June and 1st of July 1773. Under this act Mr Hastings was appointed governor-general, with General Clavering, Colonel Monson, Mr Barwel, and Mr Francis, members of council.

Affairs of the Carnatic.

It will now be proper to revert to the affairs of the Carnatic. After the departure of Bussy from that province, and the decline of the French influence, Nizam Ali resumed his power, which he employed in dethroning and imprisoning, and afterwards murdering, his feeble brother Salabut Jung, the subahdar of the Deccan. The English having received from Shah Aulum, the Mogul emperor, a grant of the Northern Circars, a tract extending 470 miles along the coast of the Bay of Bengal, and uniting the English possessions in the Carnatic with their province of Orissa, proceeded to occupy it with a military force. On this Nizam Ali, or the Nizam as he is called by the English, made an irruption into the Carnatic, and greatly alarmed the presidency of Madras. After some operations of little moment, a treaty was concluded, by which the English agreed to pay a rent for the disputed territory, and to give him such military aid as he should require in the affairs of his government. The first operation in which this force was to be engaged was the reduction of the fortress of Bangalore, belonging to Hyder Ali, the sovereign of Mysore; and thus were the English brought into collision with that powerful chief. He was one of those bold spirits who rise to eminence in times of civil confusion. From a common foot soldier, or peon, employed in the collection of taxes, he rose to high command, to wealth and dominion, and finally to the rank of sovereign prince. The Nizam, who had joined with the English against Hyder, soon became his ally, and their united forces made incursions into the Carnatic. Several battles were fought to the disadvantage of Hyder, but these were of little advantage to the English, owing to his superiority in cavalry, with which he laid waste the country to the very gates of Madras, and struck terror into the president and council. The Nizam, however, wearied of the war, quitted the alliance of Hyder, which so elevated the confidence of the Madras presidency that they resolved on the invasion of Mysore. But Hyder anticipated their designs, and having

by his masterly tactics artfully drawn the English army to Hindustan. a distance from Madras, he suddenly appeared at the head of 6000 cavalry before that city, having marched 120 miles in three days, and so alarmed the presidency, that a treaty, offensive and defensive, was concluded in April 1769, by which it was also agreed that all conquests should be mutually restored.

At this time the Mahrattas, humbled for a time by the Destruction of Paniput, now began to renew their incursions into the northern provinces, and greatly to the alarm of the subahdar of Oude, who dreaded any confederacy between them and the Rohilla chiefs or Afghans, a hardy race from the north, who having frequently aided the imperial armies, were rewarded with lands in the fertile district between the Ganges and the mountains, and to the west of the Oude territories. One of their chiefs, Nujeeb ad Dowlah, had been chosen by Abdallee Shah, on his departure from Delhi, after the battle of Paniput, as the imperial deputy. He had ruled the country with singular prudence and success, and had transmitted the government to his son, Zabita Khan, against whom a coalition was now formed by the Mahrattas and the fallen emperor Shah Aulum, anxious to regain his former power. By their assistance the emperor, in the year 1771, entered his capital of Delhi, with all the pomp of imperial dignity. Zabita Khan, unable to withstand their united attack, fled across the Ganges, leaving his fertile and flourishing territories to the devastations of the Mahrattas, to whom they afforded a rich booty. The Rohillas, alarmed by this aggression, proposed to form an alliance with the subahdar of Oude, who on his side was equally dismayed; and through the intervention of the English a treaty was accordingly concluded, offensive and defensive, by which the Rohillas engaged to pay annually to the subahdar forty lacs of rupees if he would expel the Mahrattas from their territories. He made no effort, however, to perform this service; and the Mahrattas, after retiring across the Ganges during the rains, soon returned to ravage the country, and actually extorted a sum of money from Hafiz Rhamet, chief of the Rohillas, as the price of their retreat. In 1772 they besieged the emperor, who had become weary of their alliance, in Delhi; and having entered the city, they extorted from him a grant of the two provinces of Corah and Allahabad, which he held by virtue of a treaty with the English. The subahdar was now really alarmed, and wrote the most pressing letters to the English for aid. A detachment was accordingly sent under Sir R. Barker, to assist in the defence of his territories, when the Mahrattas were recalled to their own country about the end of May 1773. The subahdar, freed from danger, now became ambitious in his turn, and was intent, either by force or fraud, upon gaining possession of the Rohilla country. With this view, in a meeting with Mr Hastings in October 1773, it was agreed that the English troops should assist in the conquest and extermination of the Rohillas, and that forty lacs of rupees should be paid for this service. In fulfilment of this iniquitous compact, the united forces, the British under Colonel Champion, entered the Rohilla territories in 1774, and on the 23d of April a battle was fought, in which the unfortunate Rohillas, after an obstinate defence, were defeated, and their gallant chief Hafiz Rhamet, slain while rallying his troops; the subahdar and his army, in the mean time, behaving with shameful pusillanimity. The whole country now lay at his mercy, and he proceeded to execute his diabolical purpose, which, as he had expressly informed the English, was the extermination of the Rohillas. Never, probably, says Mr Mill, were the rights of conquest more savagely abused; man, woman, and child were given up to the destroying sword, and the country was reduced to a desert.¹ At length it was

¹ *History of British India*, vol. iii. p. 509.

Hindustan. agreed that Fyzoolla Khan, the remaining chief of the Rohillas, should surrender one half of all his effects to the subahdar or the vizir, and should receive in Rohilcund a jaghire of fourteen lacs and 75,000 rupees. With regard to the Mogul emperor, the twenty-six lacs of rupees hitherto paid to him as his share of the revenues of Bengal, Bahar, and Orissa, were withdrawn, because he had accepted the aid of the Mahrattas in his late attempt to regain the throne of his ancestors. He was also deprived of the provinces of Corah and Allahabad, granted to him in terms of a former treaty with the Company.

Sketch of
the Mah-
ratta pow-
ers.

On the west coast of India, the presidency of Madras was at this period involved in disputes, which ended in a war with the Mahratta states; and, with a view to the subsequent history of India, it may be necessary here to give a brief account of these disputes, and of the different Mahratta powers who had now risen to political importance in India. In the Mahratta government, as originally constituted, the sovereign or rajah was assisted by a council of eight Brahmins, the chief of whom bore the title of peshwa; and in course of time this principal minister of state, on whom devolved the duties of government, usurped all the real power, and the sovereign became a mere pageant in his hands. In the reign of the rajah Sahoo, the third in succession from the brave and politic Sevajee, the founder of the Mahratta power, this revolution had been insensibly brought about. He was a weak prince, devoted, as most princes are, to ease and pleasure, and leaving to Kishwanath Balagee the chief powers of the state. He assumed the name of Row Pundit, or chief of the Pundits, or learned Brahmins, and was invested by the rajah with a *sirpah* or robe of office, with which ceremony the peshwa has ever since been installed into their sovereign dignity. Custom or policy had so completely sanctioned the usurpation of supreme power by the peshwa, that Kishwanath had quietly transmitted his dignity and influence to his son Bajerow, who confined the rajah as a sort of state prisoner to Satarah, whilst he himself resided at Poonah, the future capital of the Mahratta states. Bow, the son of Bajerow, being slain at the battle of Paniput, the office of peshwa descended to his nephew, who had two sons, Madhoo Row and Narrain Row, the eldest of whom, Madhoo Row, a minor, succeeded to his father's dignity at his death, and the guardianship of the peshwa now devolved on Ragonaut Row, more commonly known under the name of Ragoba. The council of state, consisting of the Brahmins, now made an effort to regain their lost influence; and intriguing with the mother of the peshwa, they succeeded in sowing division between the nephew and the uncle, and finally in stripping him of his power. Madhoo died at an early age in 1772, and appointed Ragoba to be the guardian of his brother Narrain Row. But he was by the same influence again stripped of his power; and dissensions having arisen amongst the council of Brahmins, or Mutsedies as they are also called, a conspiracy was formed, which ended in the murder of the young prince, when Ragoba was again acknowledged peshwa. But he was still thwarted by the ministerial factions of the Brahmins, and the consequence was a civil war, which was carried on with various fortune, but terminated at length in the flight of Ragoba from his dominions. The presidency of Bombay had been extremely anxious to procure the cession of the island and peninsula of Salsette and Bassein, as adding much to the security and value of Bombay. But all their efforts were in vain. Ragoba uniformly refused to give them up on any terms. He had now retreated to Surat; and in the low state of his fortunes the negotiation was renewed. In the mean time the presidency were informed by their resident at Goa that the Portuguese were making preparations for the recapture of their former possessions, especially of Salsette and Bassein. No longer hesitating, they sent

a force from Bombay, which carried by assault the principal fort in Salsette on the 28th of September 1774, and afterwards took possession of the island; in March 1775 they concluded a treaty with Ragoba for the surrender of these places, with other advantages; and in return they sent a body of troops under Colonel Keating, which joined his army in April, about fifty coss from Cambay; and this combined force, amounting to 25,000 men, now advanced for the purpose of penetrating to Poonah before the commencement of the rains. The enterprise failed for the present, but the armies were quartered in convenient positions; and having concluded a favourable treaty with the rajah of Gujerat, who had agreed, amongst other conditions, to advance the sum of twenty-six lacs of rupees, they prepared, with a friendly country in their rear, and greatly increased resources, to advance to Poonah the next campaign. But all these promising schemes were now frustrated by the interference of the Bengal council, which had been invested with supreme authority over the other settlements in India; and the alliance formed by the presidency of Bombay with Ragoba, the peshwa, and indeed all the other proceedings, were severely condemned by the governor-general and his council. The council at Madras were ordered peremptorily to retrace their steps, to withdraw their troops from those of Ragoba, and to give him no further aid; and they themselves proceeded to treat, by means of their own agent, Colonel Upton, with the opposite faction of the Brahmin ministers. A long and perplexed negotiation now ensued, which had nearly ended in war, when a treaty, that of Poorunder, was signed on the 3d of June 1776, by which the Mahratta ministers agreed to surrender Salsette, and the English Bassein; and the unfortunate Ragoba finally retired to Surat with only two hundred attendants.

The Mahratta power, which was spread far and wide in India, was now weakened by the same divisions which had occasioned the downfall of the Mogul empire. All indeed acknowledged their allegiance to the peshwa, the representative of Sevajee, their founder, and the nominal head of the whole confederacy. But there was no unity in the component parts of their wide-extended empire. They no longer obeyed one common impulse. The military chiefs to whom were confided the more distant provinces threw off the yoke of sovereign authority, as it was gradually relaxed; and thus, from the extension of the Mahratta power, arose various independent potentates, who, though united by a common tie, yet waged war with each other, or with the peshwa, their head, on any provocation or prospect of advantage. The most important of these independent states was, 1st, that of the Bhonslas, which included the extensive province of Berar, together with Cuttack, a part of Orissa; 2d, the province of Gujerat, broken off from the Mogul empire by Pillagee Guicowar, or the herdsman; 3d, the independent chiefs, Holkar and Scindia, whose names figure in the future annals of India, and who ruled over extensive territories in Malwah and in the regions bordering on the territories of Berar and Oude. Other inferior chiefs, offshoots from the main stock, possessed smaller portions of territory in different parts; and the internal relations of Hindustan were thus more than usually complicated, and presented a wide field for politics and intrigue.

The presidency of Madras, as well as the other two presidencies of Bengal and Bombay, were now deeply involved in the disputes of the native powers. The nabob of the Carnatic, Mahommed Ali, was incapable of ruling or of defending his country against the Mahrattas or Hyder Ali, and he relied entirely upon the English for protection and for the collection of his revenues. The disorder of his finances, already great, was much increased by the extortions of his allies, who were insatiable in their thirst of gold; and funds failing, as in Bengal, to supply their exorbitant demands, they anxiously sought

Hindustan.
War with
the Mah-
rattas.

Oppression
of the na-
tive princes.

Hindustan. elsewhere the means of relief. The kingdom of Tanjore, by the prudence of its sovereign, had enjoyed peace amidst the wars and desolations of surrounding countries; his powerful neighbours, supposing that he had amassed great wealth, mustered up against him a world of complaints, of which he readily showed the futility; and when he saw that his ruin was resolved on, that he was to be stripped of his dominions, and that he and his family were to be put to death or imprisoned for life, he pleaded for mercy with the most affecting earnestness; but avarice had extinguished every softer feeling in the breasts of his oppressors. The troops were ordered to advance; the rajah agreed to terms which he could not fulfil; and failing to pay within the exact time which the contribution imposed upon him, though he made the fairest offers, Tanjore, his capital, was taken by assault, and he and his family were delivered into the power of the nabob. This act of oppression, encouraged at first by the directors, was afterwards disapproved by a court of proprietors; and Lord Pigot was sent out as governor of the presidency, to restore the rajah, and to enforce economy and reform. The corrupt and dishonourable practices of the Company's servants were nowhere carried to a greater length than at Madras. They were in the habit of lending, or pretending to lend, money, to the nabob, at an exorbitant interest, and to receive in security assignments on the land. Paul Benfield, with a salary of some hundred pounds a year, had assignments on the lands of Tanjore to the amount of L.234,000; and Sir Thomas Rumbold, with a salary of L.20,000 a year, remitted to Europe the first year he was in office L.45,000, and in the two subsequent years a further sum of L.119,000, alleging that he had property to this amount in India before he left Europe. The lands belonging to the Company were let at an under rate to the renters, and large bribes received in return; and it was by such unworthy means that the servants of the Company so quickly acquired their enormous fortunes. Lord Pigot, in carrying into effect the views of the directors, by restoring the rajah of Tanjore, and opposing the existing abuses, was resisted by a faction. He was at last put under arrest by the members of his own council, and died after a confinement of about eight months. The authors of this violence were afterwards tried in England, and condemned to pay a paltry fine of L.1000, which was no adequate punishment for such an offence, and, to men of their fortunes, no punishment at all.

Invasion of the Carnatic by Hyder Ali. The growing ascendancy of the English naturally excited the hostility of the native powers; and Hyder Ali, irritated by their increasing influence, and by their breach of the treaty of 1769, in refusing the aid which he demanded, was now preparing to assail them with the whole weight of his power. He accordingly made peace with the Mahrattas, who formed, with the Nizam Ali and Hyder, a coalition for the expulsion of the English from India. In the year 1778, war having commenced in Europe between France and England, the presidency of Madras besieged and took Pondicherry, and Mahé, a small fort, the only remaining possession of the French on the coast of Malabar, and ranked by Hyder amongst his dependencies. Irritated by this new offence, he assembled his army, and having seized and guarded the passes of the Eastern Ghauts, through which alone the Carnatic would be invaded from Mysore, he suddenly poured down on the country below with a mighty host of 100,000 cavalry and 20,000 infantry, besides the European troops of Colonel Lally, of undoubted bravery and experience in war. Every thing gave way before this overwhelming flood of invasion; and the cavalry inundating the open plains, the inhabitants fled from their homes to the woods or the mountains, whilst the unresisted invader laid waste the country with fire and sword for many miles round Madras, and even threatened the city

itself. The council were confounded by the intelligence *Hindustan.* of this sudden calamity. They were apprized on the 21st of July that Hyder had come through the pass, that he had next day plundered Porto Novo on the coast, and Conjeveram, not fifty miles from the capital. Each succeeding day brought its tale of calamity, and on the 10th of August Madras was alarmed by the approach of the enemy's horse, and the inhabitants of the open town began to take flight. The governor and council were very indifferently provided for the fearful struggle in which they were engaged. They were destitute both of money and provisions; their small force was scattered throughout the country; and, lastly, their councils were distracted by the dissensions of the civil and military authorities. Immediate action, however, was necessary, in order to avert impending ruin. The scattered troops were therefore directed to assemble at St Thomas' Mount, for the defence of the capital. Colonel Brathwaite's detachment from Pondicherry having joined the main body on the 18th of August, an express was sent to Colonel Baillie at Gume-roponda, about twenty-eight miles from Madras, directing him to repair to Conjeveram, whither the main army now advanced under Sir Hector Munro, consisting of 1500 Europeans and 4200 Sepoys, with a train of artillery, and arrived after a distressing march of four days, during which two hundred men belonging to the seventy-third regiment were left lying on the road. They found the town of Conjeveram in flames, large bodies of the enemy's cavalry advancing on both flanks, and no appearance of Colonel Baillie's detachment, which had been impeded in its march for a day by a small torrent swollen with the rains. Hyder Ali having learned from his spies the movements of the English army, abandoned the siege of Arcot, in which he was engaged, and, upon the 3d of September, the day on which Baillie's detachment crossed the river in its advance to the main body, he encamped at five miles distance in front of the English army, near Conjeveram; thus inter-colonel Baillie's detachment cut off. posing between Colonel Baillie's detachment and the English forces; and he sent his son Tippoo with 30,000 cavalry, the flower of his army, and 8000 foot, with twelve pieces of cannon, to cut off the troops under Colonel Baillie, who had now arrived at a small village about fifteen miles distant from Sir Hector Munro's army, the movements of which he himself watched in the neighbourhood of Conjeveram. The troops under Colonel Baillie gallantly repulsed the repeated charges of Tippoo's numerous cavalry; and being now joined by a detachment under Sir R. Fletcher, sent to their aid by General Munro, they resisted long and bravely all the attacks of the overwhelming force by which they were surrounded; they even at times became the assailants; and an attack by five companies of Sepoys on the enemy's guns, which had begun to do great execution, spread amongst them such terror and confusion, that a seasonable and bold assault of their camp would, it is thought, have completed their route. The English commander maintained the same position till next morning, for which he has been much blamed; and when, at five o'clock, he began the day's march, he was assailed by the whole army of Hyder, who had left his ground without shifting his tents, to conceal his design. Colonel Baillie, with his handful of men, still maintained his ground in spite of the enemy's superior fire and the fury of his closer attacks, when, by an accident, the blowing up of two tumbrils, the English line was not only disordered, but the ammunition was destroyed, and the guns disabled. But though their fire was now silenced, they maintained a gallant resistance till three o'clock in the morning, when the commander, Baillie, despairing of relief, sent a flag of truce to the enemy; and the men having laid down their arms on receiving a promise of quarter, Hyder's troops rushed on them with savage fury; and, but for the humane inter-

Hindustan. position of the French officers, would have massacred all who survived. After this disaster, Sir Hector Munro retreated to Madras, whilst Hyder returned to the siege of Arcot, which was taken by storm on the 31st of October, with an immense quantity of ammunition and military stores.

Progress
of the war
with Hy-
der Ali.

On the intelligence of Colonel Baillie's disaster, the supreme council of Bengal requested Sir Eyre Coote to take the command of the army in the Carnatic; and on the 17th of June 1781, the English force, consisting of 7000 men and 1700 Europeans, marched from the encampment at Mount St Thomas. Hyder now changed his plan of operations, and detached different divisions of his force against the strong places of the Carnatic. But he was so overawed by the arrival of a new commander with reinforcements, that he abandoned the siege of Wandewash, and of every place which he had invested, and retired without even disputing the passage of the Palaar. The English took the opportunity of this short respite to secure possession of Pondicherry, and to disarm the inhabitants, who had revolted. Hyder having received large reinforcements, resumed the offensive; and as the plan of the English was to march southward to protect the district of Tanjore and Trichinopoly, he resolved to oppose their advance to Cuddalore. A battle was fought on the 1st of July 1781, in which Hyder was driven from his strong position with great slaughter. On the 27th of August, another battle was fought on the ground where Colonel Baillie's disaster had occurred, when he was again defeated, after an obstinate action, in which the English suffered severely; and, some weeks afterwards, he experienced a third defeat, with greater loss than before. Far from being discouraged, this warlike prince proceeded to lay siege to Vellore, eighty-eight miles south-west from Madras. Sir Eyre Coote, though he had placed his army in cantonments, advanced to its relief, and forced his way through a strong pass guarded by the enemy's force. Returning by the same pass, he was again attacked at a disadvantage with the utmost vigour; but Hyder's cavalry suffered so severely from the English artillery that he retired with loss, while Sir Eyre Coote returned to his cantonments near Madras. Whilst the war was thus carried on with doubtful success in the eastern districts of the Carnatic, hostilities now commenced on the opposite coast of Malabar. The English detachment, by which the French settlement of Mahé was captured in 1779, had since that period occupied the fortress of Tellicherry, when it was besieged by a superior force of Hyder's tributaries. Major Abingdon, the commander, having received a reinforcement from Bombay on the night of the 7th January 1782, assaulted the enemy's lines, and threw their whole army into confusion; and he soon afterwards gained possession of Calicut. Here he was joined by Colonel Humberston Mackenzie with a thousand Europeans, and offensive operations were undertaken with vigour and success, when the army returned in May, as the rainy season approached, to its cantonments at Patacalah, in Calicut. Operations were resumed in September with the reduction of a strong fort, and the army had arrived at Palacatcherry, when, being surprised in a narrow defile, the whole baggage and ammunition was captured. A retreat to the coast was the only alternative now left to the English, in the course of which they were attacked from every thicket, both on their flank and rear, and harassed in their march, by 20,000 horse under Tippoo. Arrived at the town of Paniany, on the Malabar shore, their lines were assaulted by the enemy's force in four columns, including Lally's corps, when the forty-second regiment advancing to the charge, repelled the enemy. Tippoo now hearing of his father's death, immediately departed to take the necessary measures for securing his succession to the throne.

In the south of the Carnatic a French fleet landed

2000 men at Porto Novo early in 1782; and Tippoo having arrived with a large detachment from Hyder's army, by a brilliant and successful movement surrounded Colonel Brathwaite's force, consisting of a hundred Europeans, five hundred Sepoys, and three hundred horse, encamped upon the Coleroon, before there was the smallest suspicion of his march. Forming a hollow square, this little band held out for twenty-six hours, and repulsed every attack, until, exhausted with incessant conflict, they were at last broken by a charge of the French under Lally, and would have been all massacred as formerly, but for his vigorous and humane interference. Hyder was now enabled, by the succours he had received from France, to invest Cuddalore, which quickly surrendered, when he determined to undertake the siege of Wandewash. Its importance brought the army of Sir Eyre Coote to its relief, when Hyder still declined the hazards of a battle. The English general then proceeded to the attack of Arnee, the great depository of the enemy's warlike stores and necessaries. But Hyder outstripping the slow movements of the English force, hung upon their march; and, whilst they were galled by the attacks of his cavalry, he dexterously detached a division of his army, which carried off all his treasure from Arnee, and reinforced the garrison. In the retreat to Madras, after these operations, a regiment of European cavalry, drawn into an ambuscade by the skilful tactics of the enemy, was either killed or made prisoners. Whilst the English army was cantoned in Madras, Hyder, ever active and enterprising, was concerting with the French admiral an attack on Negapatnam, a settlement of the Dutch, which had been conquered by the English at the commencement of the Dutch war in 1780. But the French fleet having been brought to an action by the English, was prevented from co-operating in this well-planned enterprise. On the return of the army to Madras, Lord Macartney, who had arrived as governor in December 1781, now concerted a plan for the recovery of Cuddalore. But the admiral steadily refused co-operation in this, or apparently in any other operations of the land forces. On the 15th of October, one of the most dreadful tempests ever known occurred at Madras; the shore was in a short time strewed with the wreck of a hundred trading vessels, and famine raged in the city, multitudes daily perishing for want. The enemy had fortunately no information of the helpless and starving condition of the place, and considerable supplies of provisions were received from Bengal and the Circars. Hyder Ali died in December 1782, at the age of eighty years; and this event produced a great and favourable change of affairs. The Mahratta war, undertaken in favour of the claims of Ragoba to the dignity of the peshwa, which had continued since 1778, was now also concluded by a peace. The capitulation by which a British force that had invaded the Mahratta country surrendered, having been violated, the Mahrattas joined the confederacy against the English. But by the great successes of General Goddard, who, in the course of three months, from January 1780, had reduced the province of Gujerat, and completely defeated Scindia, the Mahratta general, they were now detached from the alliance of Hyder, the great enemy of the English.

Tippoo, after he joined his army in the Carnatic, undertook no operation of consequence, and he was recalled to the defence of his own territories, which were assaulted by the enterprising movements of the English armies, both from the west and from the south. About the beginning of January 1783, a force concentrated at Mergoe, on the western coast of India, about 300 miles north of Paniany, under General Mathews, after storming the forts of Onore, Aranpore, and Mangalore, on the sea coast, with the slaughter of every man taken in arms,

Hindustan.—laid siege to Bednore, a rich capital of one of the Mysore provinces, which soon surrendered. A vast treasure, amounting to L.800,000 in pagodas, besides jewels, was found in this place, which immediately occasioned disputes, in consequence of the general refusing to divide the booty among the captors. He was on this account superseded by the presidency, and the command given to Colonel Macleod. But the hope of spoil appears to have corrupted the virtue of the army, which was dispersed in plundering detachments over the country, when Tippoo suddenly took possession of Bednore, making prisoners of the English garrison, which capitulated, with General Mathews, and sending all of them in irons to the strong fortresses of Mysore. Mangalore was next besieged, and taken after a gallant resistance, on the 23d of January 1784. In the mean time Colonel Fullarton, who commanded a force in the Southern Carnatic, having reduced to order the districts of Madura and Tinnevely, and taken, in April, May, and June, the forts of Caroor, Dindigul, and Daraporam, advanced to the strong fortress of Palacatcherry, which surrendered after a short siege. Coimbatore was taken possession of in November, and every preparation was made for advancing to Seringapatam, and terminating the war by the capture of the enemy's capital, when a treaty was signed on the 11th of March 1784, upon the general basis of a mutual restitution of all conquests.

The state of affairs in Bengal under the administration of Mr Hastings now claims our attention, and we shall endeavour briefly to describe the leading transactions of that memorable period. The new council, to whose care was committed the administration of India, and of which Mr Hastings was president, commenced its deliberations in October 1774, with an inauspicious appearance of mutual coldness and jealousy, which quickly broke out into open dissension. The Rohilla war was the first subject of deliberation, and it unhappily afforded too good grounds for doubt and for inquiry. Other subjects succeeded, equally difficult to handle without offence, as they involved the governor in a suspicion of corruption in the business of the revenue. The rannee of Burdwan, a widow who enjoyed an extensive district, accused her agent the duan of corruption, and the English resident of being bribed to support or to connive at his iniquities. In the accounts that were presented to the council, a sum of 15,000 rupees was charged to Mr Hastings, and 4500 to his native secretary. Another accusation of the same nature was preferred by one of the natives, namely, that the phouzzar of Hooghly, out of the salary of 72,000 rupees which he received from the Company, returned 36,000 to Mr Hastings, and 4000 to the native secretary; and Mr Grant, accountant of the provincial council of Moorshedabad, produced a set of accounts, from which it appeared that Munny Begum, a concubine of the late Meer Jaffier, who had been appointed to the guardianship of the nabob by Mr Hastings, had received 967,693 rupees¹ more than she had accounted for; and when pressed on this subject, she told that she had given 150,000 rupees to Mr Hastings for entertainment money, which was at the rate of L.73,000 per annum, and the like sum to Mr Middleton, the agent of Mr Hastings. A still more serious charge was brought forward by the rajah Nundcomar, who had been the agent of Mr Hastings in the prosecution of Mahommed Reza Khan, duan or manager of the revenues of Bengal, whose embezzlements, as well as those of Shitabray, he now accused the governor-general of overlooking; and further exhibited the particulars of a

sum of 354,105 rupees, which he affirmed that he had *Hindustan*. accepted for the appointment of Munny and Goordass to their respective dignities and powers. In answer to these accusations, Mr Hastings chiefly pleaded his dignity as governor-general. He resented them as personal insults; and when it was proposed to inquire into them by the other members of the board, he lost all calmness, and accused them of a design to supersede him in his office. "I declare," he said, "that I will not suffer Nundcomar to appear before the board as my accuser. I know what belongs to the dignity and character of the first member of this administration. I will not sit at this board as a criminal." After this he dissolved the council, in virtue of a power which he assumed as president. The majority declared the dissolution void, and continued the inquiry, when Nundcomar declared the particular sums which he himself had paid to the governor-general, gave in the names of several persons who were privy to those transactions, and presented a letter from Munny Begum, which, on examination of the seal, was found to be authentic, mentioning a gift of two lacs (L.20,000) given to the governor by herself. The governor being called upon to refund, refused to acknowledge the authority of the council, and returned no answer. At this critical stage of the proceedings, a prosecution was instituted against Nundcomar, at the instance of the governor-general and his supporters in the council, which, after some ineffectual proceedings, was dropt. But a few days afterwards, Nundcomar, at the suit of a native, was arrested on a charge of forgery; tried before the supreme court by Sir Elijah Impey and a jury of Englishmen, though it was far from clear that the court had any jurisdiction over him, being a native of Hindustan; convicted on doubtful and contradictory evidence; and finally executed, amidst the tears and loud lamentations, and even shrieks of horror, of a vast assemblage of his countrymen. This transaction, viewed in all its bearings, leaves a stain on the character of Hastings, from which it has never been relieved by the zealous testimonials of his friends. In reviewing the whole evidence and circumstances of the case, we cannot well doubt, that if Nundcomar had not accused Mr Hastings, he would never have been arrested; that his real crime, therefore, was the charge which he had brought against Mr Hastings, and not the alleged forgery; and hence that he was tried and executed because he was a witness whose testimony it was more easy to put out of the way than to confute. If this be a just inference, Mr Hastings must be considered as guilty of murder, committed under the forms of law. This, we fear, is the character which must be fixed upon him by the impartial verdict of history; and his political merits, however magnified by his admirers, cannot be accepted for a moment as any palliation of his moral guilt.

In advertng, as we shall now do, to the transactions of the governor-general with the independent or tributary states of India, it may be observed, that when he assumed the government of Bengal, the Company still laboured under great pecuniary difficulties. Disorder and waste pervaded every department of the administration; the Company's servants were intent, as we have seen, on enriching themselves rather than their masters; and the consequence was a constant want of funds for the public service. The arduous duty of providing these now devolved upon the governor-general; and the necessities of the state, if they do not justify, afford at least a key to some of those dark, and, we must add, atrocious transactions, which distinguished his administration. Bengal

¹ Nine lacs sixty-seven thousand six hundred and ninety-three rupees. A lac of rupees is 100,000, and a crore is 100 lacs, or ten millions. We have adopted the English mode of notation, as more familiar to the reader.

Hindustan had been exposed to such heavy exactions that the country was exhausted; and Mr Hastings, instead of adopting economy, and improving the revenue at home, sought relief in the plunder of foreign princes, who were now laid under contribution to the necessities of the state. The rajah Cheyt Sing, who ruled at Benares, was the son of Bulwunt Sing, who had sided with the English in the war with Sujah Dowlah, subahdar of Oude, and who had been confirmed in his inheritance by the British for a fixed tribute, which was paid with an exactness not very usual in India. Mr Hastings proposed in 1778 to increase this contribution; and because the rajah pleaded poverty, and required time, he became offended, replied to him in harsh and imperious terms, refused to allow time for raising the money, and threatened military execution in case of delay. These exactions were renewed from year to year, and increased, the rajah remonstrating in the most humble terms, and being treated on account of his remonstrances as a delinquent whom it was necessary to punish. "I was resolved," says Mr Hastings, "to draw from his guilt the means of relieving the Company's distresses." This was truly his object, and he accordingly found out guilt in the whole conduct of the rajah, though it was meek and humble, such as the weak naturally assume when they are in the power of the strong. At last Mr Hastings proceeded to Benares, and, notwithstanding the supplications of the rajah, craving forgiveness if he had offended, on the ground of his youth and inexperience, he ordered him under arrest; a tumult arose between the Sepoys and the inhabitants, in which the former were all put to the sword; the rajah fled; war commenced, which ended in his discomfiture, and he was dethroned. His mother, the wife of Bulwunt Sing, the faithful ally of the British, took refuge in the fort of Bidgegur; she surrendered her treasure on condition of being allowed protection for herself and female attendants. But the articles were shamefully violated; and she and her followers were plundered of their effects, and their persons subjected to the rude examination of the licentious soldiery and the followers of the camp. In a letter, Mr Hastings says, "I think that every demand she has made to you, except that of safety and respect for her person, is unreasonable." He afterwards adds, "I apprehend she will contrive to defraud the captors of a considerable part of the booty, by being suffered to retire without examination. But this is your consideration, not mine. I should be sorry that your officers and soldiers lost any part of the reward to which they are so well entitled." The ideas implied in this hint not to suffer these illustrious females to pass without examination cannot be mistaken; it is sufficient to sanction the grossest outrages; and it appears, indeed, that those to whom it was addressed were not slow to profit by the instructions given them.

The treasures of Cheyt Sing and his widowed mother fell so far short of the expectations of Mr Hastings, that they did not even pay the expense of quelling the revolt which he had occasioned; and hence this transaction, impolitic as well as unjust, increased the embarrassments of the Company. The governor-general was therefore compelled to look elsewhere for treasures that might be profitable to the state, and he fixed his eye on the two princesses of Oude, known by the name of the Begums, the one the mother of Sujah Dowlah, the late nabob, eighty years of age, and the other his widow, and mother of the reigning nabob, who

were possessed of treasures to a great amount, and of jag-Hindustan hires or estates, from which they maintained their own state and dignity, and the numerous families of the preceding nabobs, with a suitable train of attendants. The nabob of Oude, Sujah Dowlah, had long been unable to pay the contributions imposed on him by the English; he was in arrear to the amount of L.1,400,000, and Mr Hastings now entered into a negotiation with him for the seizure, or resumption, to use the official phrase, of the jaghires or estates which belonged to the Begums, for the purpose of enabling him to pay up this arrear. It is unnecessary to dwell on the proceedings by which a son was persuaded or compelled to aid in the spoliation of his mother and grandmother. Suffice it to observe, that Mr Middleton, the agent of Mr Hastings, in order to extort the surrender of the treasure from the princesses, ordered the zenana, the dwelling of the princesses at Fyzabad, with their numerous families, to be blockaded by troops; and these measures failing to obtain the treasures, the eunuchs Jewar Ali Khan and Behar Ali Khan, the confidential servants of the princesses, were imprisoned and put in irons, and were kept from all food, and exposed to secret tortures. These dreadful measures so wrought upon the feelings of the princesses, that the elder Begum surrendered the treasure to the amount of the nabob's bond given to the Company in 1779-1780. But another balance still remained, and new severities were applied to the ministers of the princesses, which drew from them an engagement to complete the demanded sum; but they were still tortured; and though the princesses now delivered their whole effects, even to their table utensils, and had paid upwards of L.500,000 before the 23d of February 1782, and the resident himself reported "that no proof had been obtained of their having more," yet the prisoners were not released, as they earnestly entreated. On the contrary, they were threatened with greater severities to enforce a payment of L.25,000, according to their account, and of L.50,000, according to the resident, still due on the extorted bond; and though they had now lain two months in irons, were sickly, and the officer who guarded them wrote to the resident Middleton, craving that their irons might be taken off, and that they might be allowed to walk in the garden, the nature of his orders allowed no mitigation of their sufferings; they were even threatened a few days after, on the 1st of June, with being removed, and were actually removed to Lucknow, where they were tortured in secret, of which the letter addressed by the assistant resident to the commanding officer of the English guard affords the odious evidence.¹ The cruelties to which the women and children of the zenana, composing the household of the late rajahs, were exposed, are truly shocking to humanity. They were distressed for want of food to that degree that they uttered the most piteous cries, and were even driven to the extremity of appearing publicly before the Sepoys, an exposure dreaded more than death by Hindu females of rank; and these barbarities were executed under the orders of Englishmen, a disgrace to the name, and by English officers, unwilling agents, we may well believe, in such cruelties, and whose letters describe the extreme sufferings of these helpless females. In the letter of the commanding officer, it is said, "they are in a starving condition, having sold all their clothes and necessities, and now have not wherewithal to support nature." "Last night the women of the zenana assembled on the tops of the buildings, crying in the most

¹ We subjoin the two letters. The first, dated January 1782, is addressed by the resident to the officer guarding the eunuchs: "Sir,—When this note is delivered to you, I have to desire that you order the two prisoners to be put in irons, keeping them from all food, &c. agreeable to my instructions of yesterday. (Signed) NATH. MIDDLETON." Letter of the assistant resident to the commanding officer of the English guard: "Sir,—The nabob having determined to inflict corporal punishment upon the prisoners under your guard, this is to desire that his officers, when they shall come, may have free access to the prisoners, and be permitted to do with them as they shall see proper."

Hindustan. lamentable manner for want of food; that for the last four days they had got a very scanty allowance, and that yesterday they had got none. The melancholy cries of famine are more easily imagined than described."¹ These cruelties were continued for nearly a year, and persevered in after all the treasures were surrendered, in the vain hope that some secret hoard might still be retained, which torture would compel them to bring forth. Amongst other particulars, it may be added, that Mr Hastings received from the nabob a present of L.100,000, and craved permission to accept it from the directors, whose orders were positive against the receipt of presents. These princesses were accused of aiding in the rebellion of Cheyt Sing. But of this charge no proof beyond mere rumour was ever adduced; and, in considering all the circumstances of the case, it appears to have been invented as a pretext for despoiling them of their wealth. Mr Hastings resolved to draw from the guilt of Cheyt Sing, to use his own words, the means of relieving the Company's distresses; and the same patriotic motive seems to have dictated the accusation against the Begums. In other countries it is the poor, those who are discontented and in debt, that are turbulent; but here it is the rich, aged women of fourscore and upwards, living in affluence and splendour under the protection of the English, that are accused of rebelling against their benefactors, and of raising disturbances which could bring no advantage, but, on the contrary, were fraught with danger, to them. The directors in Europe disapproved of these proceedings against the princesses; they saw no evidence of their rebellion; and they ordered their estates to be restored, and an asylum to be offered them within the Company's territories. But the authority of the directors was little respected in India, the governor-general never wanting a pretext for disobeying their express commands. It appears, however, that some provision was afterwards made for these princesses, and for the restoration of a portion of their estates. The remaining transactions of Mr Hastings before he quitted Bengal relate to Fyzoola Khan, who survived the ruin of the Rohilla nation in 1774; and he now entered into a scheme with the nabob of Oude for dispossessing him of his dominions. In a journey which he afterwards undertook to the upper provinces, in order to regulate the affairs of Oude, he was a witness to the desolation of the country from the exactions of his own deputies, a country which was flourishing and happy under the milder sway of Cheyt Sing.

On the 8th of February he resigned his office and embarked for England. For a more full detail of the conduct and character of Mr Hastings, the reader is referred to the work of Mr Mill, which contains a clear and well-digested view of all the dark and complicated transactions of his stormy administration. The calm and philosophical tone maintained by Mr Mill; his impartiality and love of truth and justice; and the interest which he uniformly manifests in the cause of suffering humanity, give a peculiar value to his work as a history. In his estimate of Mr Hastings' character, he seems to consider it due to truth to state the difficulties and temptations under which he acted, as to a certain extent palliating his guilt. We may remark, however, that crimes, especially those of a deep dye, are never committed except under strong temptation; and when we consider that those of which Hastings is accused are tyranny, extortion, and corruption in his high

Hindustan. office; cruelty, the secret torture by his agents of innocent individuals, by means of famine, stripes, and imprisonment; violence threatened to females by the same agents as the means of extortion, he chiding them all the while for delay; his bargain for the extermination of the Rohillas by fire and sword; and the provinces of Oude and Benares reduced, under his unhappy rule, from contentment and prosperity to desolation; we can scarcely admit the palliations suggested by the candour of the historian. Mr Hastings was impeached, on his return to Europe, before the House of Peers, of high crimes and misdemeanours, of which he was declared innocent by a great majority of his judges. But there were various circumstances which detracted from the value and authority of this acquittal. The House of Lords, from its constitution and character, is unfit to act as a judicial tribunal. It is a political assembly, consisting of the two opposite parties, the one against, and the other in favour of the ruling power; it is thus exposed to the corrupting influence of politics, and is generally ruled, even in its judicial capacity, by the minister of the day, of which, in our more recent history, we have had ample proofs. It wants impartiality, therefore, that essential attribute of a court of justice; and there were, besides, in the present case other sources of delusion. The hope of sharing in the wealth of India had now shed its baneful influence over the land; that hope swayed all the higher classes, including the peers, who lent an unwilling ear to the charges; and this, joined to the reputed favour of King George III. for the accused, rendered the prosecution unpopular. The value of the acquittal was also lessened by the mode of conducting the defence. Mr Hastings was far from courting inquiry; on the contrary, he availed himself of all the legal subtleties of a technical defence. He constantly objected to evidence, and to the production of papers. He acted wisely, if he was guilty, in screening his conduct under legal pleas; but not so if he was innocent, because by resisting inquiry he hindered his innocence from being made clear, to the confusion of his enemies.

The mal-administration of India had now become a standing topic of declamation at home, in which all parties in parliament eagerly joined; and as the privileges of the Company were to expire after the 25th of March 1780, some new arrangement became necessary for the future government of India. Negotiations for this purpose had been begun between the ministers and the directors; and an act was at length passed in 1781, which, besides regulating the dividend, and other financial matters, more fully detailed in the account given at the conclusion of this article, of the commercial transactions of the Company, ordained that the directors should communicate to the ministers all despatches sent to India with respect to revenues, and to civil and military affairs. In 1783 Mr Fox brought forward his celebrated measure for regulating the commercial concerns of the Company at home, and for the better government of their territories abroad. He proposed to supersede the two existing courts of proprietors and directors, by vesting the whole administration of the territories, revenues, and commerce of India, in seven commissioners, to be chosen by parliament; these to have the power of appointing and of dismissing all persons in the service of the Company; nine assistant directors, being proprietors of India stock to the amount of L.2000, to be named by the legislature, and to assist

¹ See *Hastings' Trial*. Letters of Captain Leonard Jaques, of 6th and 7th March 1782; also letter of Major Gilpin, dated 30th October 1782. At last the unhappy females became desperate from want, and resolved to break into the market-place; and with this view "they arranged themselves in the following order; the children in the front, behind them the ladies of the seraglio, and behind them again their attendants." They were, however, opposed in their intentions by the Sepoys. On the following day their clamours were more violent than usual. It was resolved to drive them back by force. "The Sepoys," it is added, "consequently assembled, and each one being provided with a bludgeon, they drove them by dint of beating into the zenana." (*Letter to the Resident at Lucknow.*)

Hindustan in the details of commerce, and to be under the authority of the superior board. This was the substance of Mr Fox's bill, by which the government of India was transferred from the directors and proprietors to these seven parliamentary commissioners. There were, however, numerous other provisions for securing the punishment of Indian delinquents, for ensuring publicity; and all the serious abuses which had been committed by the servants of the Company were specially enumerated and forbidden. Monopolies were abolished, the land-tax was to be fixed, and it was provided that the zemindars should be reinstated in their dignities and lands.

In 1784 Mr Pitt introduced a new bill for the better administration of Indian affairs, the chief distinction of which from the other was the institution of a board of control, or of six commissioners, to be chosen, not by parliament, but by the king, who were not to supersede the court of directors, but only to "check, superintend, and control" all the acts and concerns which in anywise relate to the civil or military government or revenues of the Company's dominions; and with this view all letters and orders were to be submitted, before being sent out to India, to the inspection of the board, who might alter and amend these as they should deem expedient; and all communications from India were in like manner to be submitted to its inspection, and this board might even transmit orders to India without being submitted to the directors. The power of the court of proprietors was greatly diminished; a secret committee of directors was appointed; a provision was made for enforcing the disclosure by individuals of the fortunes brought home by them from India; and a new tribunal was erected for the trial of offences committed in that country. The nomination of the commander-in-chief was vested exclusively in the king; that of governor-general, presidents, and members of all the councils, in the directors, subject to the approbation of the king; which clause, rendering the approbation of the king necessary, was afterwards repealed, but he was still allowed the power of recall. The servants in India were forbidden to engage in war, to receive presents, or to disobey orders transmitted by the board; and provision was made for the restoration to the zemindars of the lands from which they had been ejected. In the year 1786 no less than three acts were passed for the amendment of this act, by one of which power was given to the governor-general to act without and even against the consent of this council; by another the military was subjected to the civil power; and by a third act, the most efficient clause of Mr Pitt's bill was repealed, which ordained every public functionary of the Company, on his return to Europe, to make a full disclosure on oath of the property he possessed. This was considered as too severe a test for the Company's servants, though it could not have affected those who acted honestly. It is the guilty only who suffer by inquiries of this nature.

Mr Pitt's bill defined rather loosely the respective powers of the board of control and the directors; and the consequence was, that they speedily came into collision. The first question which came under their joint consideration, was the settlement of the nabob of Arcot's debts. These debts were owing to the Company's servants, and it was not very clear that any equivalent had been given for them. Paul Benfield, a principal creditor, who, as we have already mentioned, acted as a junior clerk of the Company, with a salary of some hundreds a year, advanced a claim, which, with interest, amounted to L.592,000. Such transactions, therefore, were of so very doubtful a character, that they presented a *prima facie* case for inquiry; and Mr Pitt's bill accordingly provided that the court of directors "should take into consideration the origin and justice of such demands." But how great was

their surprise when the board of control ordered that Hindustan these debts, some of them contracted in 1767, should be all paid without inquiry, and with the addition of interest at the rate of twelve per cent. The directors remonstrated against this proceeding, but in vain. The board ordered the debts to be paid immediately, though, in a similar case in 1805, the commissioners appointed to inquire into the more modern debts of the nabob of Arcot, out of claims to the amount of L.20,390,570, allowed only L.1,346,796. These facts too clearly point to the parliamentary influence of the East India interest as the true spring of this corrupt transaction; and the same interest also prevailed in subverting the plan which Lord Macartney had adopted for the management of the Carnatic revenues, and in restoring the administration of the nabob, which was a system of misrule that impoverished the country exactly as it tended to enrich the Company's servants. This, and other differences which arose, induced the directors to question the powers of the board of control; and a declaratory act was in consequence brought forward by Mr Pitt explaining these powers, according to the interpretation, not of the directors, but of the ministers. This act vests the real power in the board of control, though in practice a large share both of power and patronage has been still left to the directors.

Lord Cornwallis assumed the government of India in War with September 1786. He had ample instructions both from Tippoos the court of directors and the board of control; and he carried into effect several very important reforms, both in the management of the revenue and in the administration of justice, whilst in his arduous contests with Tippoos he fully maintained the honour of the British arms. To the native and dependent powers his conduct was moderate and just; and one of his first cares was to relieve the nabob of Oude from the extortions of the former government, by which the country was impoverished, and in many places deserted and desolate. The wretched condition of the people is described in strong terms by Lord Cornwallis; and he now reduced the annual payment of the nabob from eighty-four lacs, equal to L.940,000, to fifty lacs, and left in his hands the internal government of his country. But the mind of the governor-general was soon engrossed by other and more momentous concerns. Tippoos, who naturally viewed with jealousy the growing ascendancy of the British, began to take hostile measures. He descended from the Ghauts with a large military force, and spread alarm along the whole western coast. At length, throwing off all disguise, he commenced an attack on the rajah of Travancore, an ally of the British, and invaded his dominions. Lord Cornwallis now prepared for war. He formed a league with the Mahrattas and the nizams, who agreed to aid with a military force in the approaching contest. The plan of the campaign was, that a division of the British under General Meadows should penetrate through the province of Coimbatore into the heart of the Mysore country, whilst General Abercromby should reduce the territory of Tippoos on the coast of Malabar, and Colonel Kelly remain to protect the Carnatic from the ravages of the enemy. The division of General Meadows marched from the plain of Trichinopoly on the 15th of June 1790, and all the fortresses in the line of its march, namely, Caroor, Daraporam, Errood, Coimbatore, Sattimungul, Dindigul, and Palacatcherry, were necessarily occupied, by which the army was divided into three bodies, one at Coimbatore, another at Sattimungul, sixty miles distant, and a third at Palacatcherry, about thirty miles in the rear. In this situation, Colonel Floyd at Sattimungul, was attacked and forced to retreat with loss, and with great difficulty effected a junction with General Meadows. The sultan now resolved to attack, and, if possible, surprise the English chain of posts. He

Hindustan. retook Errood; approached Coimbatore, which had been previously reinforced; and afterwards turned to Darapam, which capitulated. Colonel Maxwell with his corps being ordered to invade Barramahal, the sultan, leaving part of his army to watch General Meadows, hastened to attack, and, if possible, to cut off this detachment. The British, and a regiment of cavalry, inveigled in a defile, were driven back with great loss. But the able dispositions of Colonel Maxwell frustrated any further attempts on the part of Tippoo; and he soon afterwards effected his junction with General Meadows. The sultan having thus succeeded in defeating the original plan for the invasion of Mysore by a rapid march into the Carnatic, arrived before the English depôt of Trichinopoly, whither he was followed by General Meadows, and afterwards to Trincomalee; and thus ended this indecisive campaign. The Malabar country was in the course of three weeks completely reduced under the British power by the force under General Abercromby.

Lord Cornwallis now resolved to assume the command of the army, and, advancing to the Ghaut Mountains in the direction of Velore, to lay siege to Bangalore, and thence to proceed against Seringapatam, the capital of Mysore. Early in February 1791 he was on his march to Velore; and on the 5th of March the English army sat down before Bangalore, which on the 21st was carried by assault; an event which, fixing the seat of war in the enemy's territory, proved decisive of its success. On the 28th Lord Cornwallis began his march from Bangalore, in the course of which he was joined by the nizam's force, amounting to 10,000 cavalry, which were found to be of little service. On the 13th of May the British army reached Anika, about nine miles from Seringapatam, destitute both of provisions and of draught cattle. It was the intention of Lord Cornwallis that General Abercromby, ascending through the passes of the Ghauts from Malabar with the Bombay army, and the Mahratta force under Purseram Bhow, should penetrate into the centre of the sultan's dominions, and co-operate with the main army in the attack of the capital. Of the movements of this force Lord Cornwallis had received no intelligence; and having defeated Tippoo's army in the vicinity of Seringapatam, he now resolved, as the Caverry was too large to be crossed in safety, to ascend to a ford at Cansambaddy, eight miles above Seringapatam. In this march the troops were exposed to unexampled hardships; to disease, from scarcity of food, and of the means of conveyance owing to the complete failure of the draught cattle; and all their calamities were aggravated by the small-pox, which raged in the camp. It was now apparent that the army could only be saved by a timely retreat, and by the sacrifice of the battering train and all the heavy equipments. On the 21st of May, accordingly, the retreat was begun; and immediate orders were sent to General Abercromby to follow the same course, which occasioned a similar destruction of the battering train and other heavy equipments. So great was the destruction, that the ground on which the army of Lord Cornwallis had encamped at Cansambaddy was covered to an extent of several miles with the carcasses of the cattle and horses; and the last sight of the gun-carriages, carts, and stores of the battering train, left in flames, was the melancholy spectacle which the troops beheld, as they passed along, on quitting this deadly camp.

Fortunately for the British army, it was met, before the end of the first day's march, by the allied force of the Mahrattas, under Purseram Bhow and Hurry Punt. Every despatch sent to these chiefs had been intercepted by the vigilance of the enemy, and they were astonished when they learned the disasters which had been occasioned by their delay. Their arrival, which evinced their sin-

cerity in the cause, produced general satisfaction in the British camp, and a conviction, that the ruin of the sultan, though delayed, was now certain and inevitable. Tippoo, Treaty overawed by this formidable confederacy, made overtures with Tippoo to Lord Cornwallis for the conclusion of a peace; but that nobleman would listen to no terms of accommodation in which his allies were not included, and which were not preceded by the release of all the prisoners that had been detained during the present and former wars. The arrival of the Mahratta troops, amounting to 32,000 cavalry, however fortunate it might be deemed at the critical moment in which it happened, brought little additional effective strength to the allied army. Their battalions were unwieldy, irregular, and ill disciplined; their force had declined as much as Tippoo's had advanced in improvement; and they were at present far inferior to those troops who, under Madha Row, had defeated Hyder Ali in 1772.

The combined armies amounted to about 80,000 men; and if to these be added four times the number of camp followers, brinjaries or grain carriers, and the carriage department, the number of strangers to be subsisted in the Mysore alone could not be much less than half a million. That no distrust, jealousy, or counteraction, should have disturbed the combined operations of such an immense multitude, must be ascribed to the unexampled moderation and the vigilant conduct of the commander-in-chief. Such a vast army had never taken the field in India in the British cause; yet no murmurs, nor even the slightest appearance of distrust, were ever manifested by the allies towards the British commander. They submitted with implicit confidence, not only to his arrangements in carrying on the war, but, which was little to be expected among allies so much alive to their particular interests, they acquiesced in his distribution of the conquered territories, with a deference which evinced the most perfect confidence in his liberality and justice. With these coadjutors, Lord Cornwallis set out in the month of June towards Bangalore. He determined on a new and circuitous route northward by Naggemungulum; and in order to facilitate the communication between the Mysore and the Carnatic, from which the supplies were chiefly to be drawn, the various hill forts which command the different passes were to be reduced. Amongst these forts, remarkable for natural strength, Oossoor, Rayacottahud, and Nundydroog, were assaulted and taken. There remained Kistnaghery, Savendroog, and Ootradroog, on the first of which an unsuccessful attack was made. Savendroog consists of a vast mountainous rock, which rises above half a mile in perpendicular height above its own base, which covers a space of eight or ten miles in circumference. This rock is surrounded by walls on every side, and defended by cross barriers wherever it was deemed accessible. Towards the upper part, the immense pile is almost precipitous, and has the further advantage of being divided on the top into two hills, which have each their defences, and are capable of being maintained independently of the garrison in the lower works. To the siege of this tremendous fortress, Lieutenant-Colonel Stewart, commanding the right wing of the main army, was appointed. The attempt commenced on the 10th of December. In three days a practicable breach was effected, and both hills were stormed, with only one private soldier wounded. Colonel Stewart's detachment marched in two days against Ootradroog, another fortress strengthened by five different walls, and so steep as to prove tenable by a handful of men against the largest army. After the refusal of a summons to surrender, the lower fort was escalated with such rapidity, that the killadar requested a parley. But on some appearance of treachery in the upper fort, the assault was ordered; some of the gates were instantly broken, others were es-

Hindustan caladed, till five or six different walls on the face of the steep rock were passed, when the troops gained the summit, and put the garrison to the sword. The assault of these fortresses, which had hitherto been deemed impregnable, made so serious an impression on the enemy, that in none of the hill forts, however inaccessible, did they afterwards make any attempt to resist the British troops. Hence the strong mountainous country between Bangalore and Seringapatam, which, studded with forts, had so much checked all communication, now afforded security to the convoys. These henceforth reached the army without opposition; and the supplies of warlike stores of every description were as completely re-established as they had been at the beginning of the last campaign.

To prevent any future scarcity of the great article of grain, the commander-in-chief encouraged the native brinjaries, a class of men of whom we have already given some account. They form a peculiar caste, who are traders in grain, and whose utility is so universally acknowledged that they are regarded as neutral in war, and are not hindered by either of the belligerents from carrying supplies of grain to the other. By constantly affording regular payment and a good price to these native merchants, they supplied the camp to an extent far exceeding what could ever be furnished by the most extensive carriage establishment. With such ample supplies, preparations were made for the commencement of the campaign. The Bombay troops, destined again to act from the same quarter as last season, marched from Cananore, and arrived at the foot of Poodicherrim Ghaut in the month of December. Several weeks of hard labour were necessary to drag the artillery through woods extending nearly sixty miles, and over mountains of immense height, when this force, consisting of 8400, with all their baggage and artillery, and a supply of rice for forty days, penetrated with safety into the Mysore frontier, which they reached on the 22d of January 1792. To facilitate the return of the army, batteries were constructed to defend the pass; a precaution which, if the sultan had not overlooked, he would have suffered no invasion on this quarter of his dominions.

The Mahratta forces, after taking the important post of Simoga, which, however, was soon retaken by one of Tippoo's generals, and defeating Reza Saib and nearly 10,000 of the sultan's cavalry, effected their junction with the Bombay army, though somewhat later than the appointed season. The main army under Lord Cornwallis, being joined at Ootradroog by the battering train under Colonel Duff, and the last convoys under Colonel Floyd, and also by the army of the nizam, was at last fully prepared to resume its enterprises against the sultan, who, in imitation of his father when formerly attacked in 1767, had encamped with the whole of his force in a strong position under the walls of his capital. On the 1st of February the allied armies marched from Hooleadroog, the last hill fort of which they had taken possession, lying at the distance of only forty miles from Seringapatam. The last march, of the 5th of February, stretched across a range of barren hills lying six miles north-east of Seringapatam. From these heights a view of the whole city was presented to the army, and the encampment of the sultan under its walls. Every circumstance was eagerly viewed by our troops; and, from the sultan's position, it was evident that he meant to defend the place in person, and to make it the grand concluding scene of the war. The camp of the allies was pitched on the north side of the island. The British formed the front line, and extended along both sides of the Lockany, a small river which at this place flows into the Cavery. The reserve was placed a mile in the rear, to afford space for the baggage and stores; and the nizam and Mahrattas were stationed

still farther in the rear, to prevent interference with the British camp.

Opposite to Seringapatam, on both sides of the river, a large space was enclosed by a bound hedge, which marks the limits of the capital, and afforded a refuge to the peasants during the incursions of cavalry. Tippoo's front line, or fortified camp, lay immediately behind this hedge, where it was defended by heavy cannon in the redoubts, and by a large field train advantageously placed. In this line there were a hundred pieces of artillery, and in the fort and island which formed his second line there were above thrice that number. The redoubts on his left were intrusted to two of his best officers, and a corps of Europeans commanded by Monsieur Vigie; Sheik Ansar, a general of established reputation, was stationed on the right, and the Carighaut Hill; whilst Tippoo himself commanded the centre, having his tent pitched in the sultan's redoubt. The fort and island, where there was the greatest number of guns, were intrusted to Syed Saib and other commanders. The whole army of the sultan thus stationed consisted of about 50,000 men.

The whole attention of Tippoo, on finding that he could not keep the field, was directed to the fortifying of this camp, and the strengthening of his defences in the fort and island, under the idea that the want of supplies, or the approach of the monsoon, would again force his enemies to abandon their enterprise, as they had been compelled to do on former occasions. In these circumstances, Lord Cornwallis resolved on the bold enterprise of a night attack on the enemy's fortified camp. Accordingly, on the evening of the 6th of February 1792, just after the troops had left the parade, orders were issued for an attack at seven o'clock, of the enemy's camp and lines, in three divisions. The British camp was left to be defended by the artillery and cavalry; whilst the assailants, who were instantly furnished with guides and scaling ladders, marched in perfect confidence that muskets alone, for they were unprovided with artillery, would prove the fittest instruments for opening their way into the enemy's camp. The allies of the British, to whom this design was not communicated till after the columns had marched, were struck with surprise and consternation on learning that Lord Cornwallis, like a common soldier, was personally to lead the attack on the enemy's fortified camp. They not only deemed his success impossible, but they dreaded that the ruin of the allied army would be involved in the attempt.

The three columns into which the assailants had been divided marched with equal intrepidity to execute the different objects which had been allotted them. Many obstacles intervened; various conflicts ensued in different quarters of the enemy's camp; each party was uncertain of the fate of the rest, and each individual of his associates. The return of day at last removed their fears and uncertainty, by disclosing the complete success which had crowned their exertions throughout the whole line of attack. The enemy having lost all their positions on the north side of the river, where the siege was to commence, and almost the whole of the island, every material object of the assault was secured. On the side of the British, the loss, though considerable, amounting to 536 men, was small in proportion to the importance of the victory and the disasters of the enemy, of whom it afterwards appeared that 4000 had been slain in the various conflicts during this night of enterprise, danger, and death, besides a much greater loss which was suffered by desertion.

The British army, now in possession of the island and town of Seringapatam, and flushed with the pride of victory, immediately began to make the necessary preparations for the siege of the fortress or citadel. The mosques

Hindustan. and religious buildings on this enchanting island, watered by the Cavery, and the seat of perpetual verdure, were converted into hospitals for the wounded and sick; and the trees, now for the first time assailed by the axe, furnished materials for fascines and gabions for the approaching siege. The sultan was now seriously alarmed; and after vain efforts to retard the siege by a distant cannonade, which occasioned little injury, he at last began to meditate seriously on the necessity of a peace. In order to smooth the way for his overtures, he previously liberated two British officers, who had been detained contrary to capitulation in Coimbatore. These officers, who had not been treated with his usual rigour, he loaded with presents, and made the bearers of a letter to Lord Cornwallis, suing for peace. He at the same time had recourse to another daring expedient, which might have been attended with fatal consequences. He despatched a small party of horsemen in the night to surprise the tent of Lord Cornwallis, and to put him to death. The party were detected by their eager inquiries after the commander's tent; and being fired upon, effected their retreat. The Bombay army, which was at this time approaching, effected its junction with the main army on the 16th; and on the second night after this event the trenches were opened, and a parallel formed within eight hundred yards of the north face of the fort. General Abercromby, stationed on the southern quarter with a strong detachment, was ordered to cannonade it from the heights. This attack being directed against the weakest part of the fort, occasioned the greatest alarm. Tippoo himself, therefore, at the head of his troops, marched to dislodge the general. Being supported by the guns of the fort, he maintained the action for the whole day; but towards evening he was forced to retreat. This desperate effort was the last that Tippoo made for his defence. His affairs hastened to a crisis; cabals were formed by the chiefs, and his troops deserted in multitudes during the night. He saw his capital blockaded on every side by a powerful army, plentifully supplied with provisions, which must infallibly reduce his troops by famine, should they even prove successful in repelling its assaults; even his last hopes of relief from the monsoon, and the swelling of the river, were thus finally cut off.

On the 23d of February, therefore, the preliminaries of peace were signed by Tippoo, amidst the conflicting emotions of pride, resentment, and fear; and orders were issued to the troops on both sides to cease from further hostilities; a stipulation of which the dread of an immediate assault alone enforced the observance.

By the terms of this treaty, Tippoo was compelled to pay, as an indemnification for the expenses of the war, three crores and thirty lacs of rupees, at two instalments, the first to be advanced immediately, and the second at the end of four months. Other articles of this instrument provided further, that all the prisoners taken from the allied powers, from the time of Hyder Ali, should be unconditionally restored; that no less than one half of his territories should be ceded to the allies, and that two of Tippoo Sultan's three eldest sons should be given as hostages for the due performance of the treaty.

About noonday on the 26th, the young princes, the one eight, and the other ten years of age, mounted on their elephants richly caparisoned, and attended with a splendid retinue, left the fort, the walls and ramparts of which were crowded with spectators. Amidst the vast multitudes whom curiosity or affection had drawn out to witness this scene, Tippoo himself was beheld standing above a high gateway, through which, as they passed, the princes were

Hindustan. saluted by the guns of the fort; a compliment which they again received as they approached the British camp. They were seated in silver howdahs, attended by their father's minister and a numerous retinue. The procession which they thus formed was equally grand and interesting. It was led by several camel harras and standard-bearers, carrying green flags suspended from rockets, followed by one hundred pikemen, with spears inlaid with silver. Their guard of two hundred Sepoys, and a party of horse, brought up the rear.¹

Lord Cornwallis, attended by his staff, and the principal officers of his army, and a battalion of Sepoys, received them at the door of his tent, and embraced them with a cordiality and tenderness that resembled parental affection. The manners, dress, and appearance of the young princes themselves, formed an interesting spectacle to their European hosts. They were clothed in red turbans and long white muslin gowns, everywhere sparkling with emeralds, rubies, and pearls. Thus attired, the young princes, immediately after their reception, were seated on each side of Lord Cornwallis, when Gulam Ali, the head vakeel of Tippoo, thus addressed the British general:—"These children were this morning the sons of the sultan my master; their situation is now changed; they must look up to your lordship as their father." The scene now became most interesting; the faces of the children brightened up; and not only their attendants, but all the spectators, were delighted to observe, that any fears they might have harboured were removed, and that they would soon be reconciled to their change of situation. After being regaled, in the eastern manner, with ottar of roses and betel-nut, the princes were presented each with a gold watch from Lord Cornwallis, a gift from which they seemed to receive great delight. Lord Cornwallis next day visited them in their tents; and each of them made him a present of a Persian sword, and he made them a present of some elegant fire-arms in return.

Some difficulty occurred in adjusting the terms of a definitive treaty. When the territory of the Coorga rajah, in particular, was required, the demand seemed unexpected both by the sultan and his ministers, and was at first received with astonishment and disdain. This rajah was considered as a chief cause of the war, and Tippoo, therefore, wished to crush him. Lord Cornwallis seemed equally resolute in his defence; for he again manned the works, and threatened to recommence the attack. Happily, his stock of provisions was ample; and although upwards of 400,000 strangers and half a million of cattle were daily to be fed, the supply was sufficient for the whole; whilst one million sterling of the fine imposed on Tippoo had already been paid. The firm determination of the commander-in-chief, aided by these circumstances, which were not unknown to the sultan, damped his resolution. His resentment cooled, and he finally acceded to the terms agreed upon, and copies of the treaty were delivered to the confederated powers.

From the conclusion of this treaty, dictated to Tippoo Nabob of Oude. by an English army at the gates of his capital, no great event occurs in the history of India till the renewal of the war in 1798, during the administration of Lord Mornington. The affairs of the nabob of Oude, and his dominions, were both hastening to ruin under his own mismanagement and that of the English; and, with a full knowledge of this, his sway was now extended over the district of Rampore in the Rohilla country, granted to Fyzoolah Khan, the Rohilla chief, who survived the ruin of his nation, and who died at an advanced age in 1794, leaving the territory of which he was ruler in a high state of cul-

¹ For the substance of this account, see Major-general Dirom's narrative of this campaign.

Hindustan. tivation. On the pretence of the usurpation of the reigning prince, who had made his way to the throne by the murder of his brother, the British troops made war on the Rohillas, and defeated them. The treasures of the late chief, amounting to 332,000 gold mohurs (L.607,000), were given to the vizir or ruler of Oude, who returned twelve lacs of rupees (L.127,000) to the British army; ten lacs of revenue were assigned for the support of the lawful prince, now dethroned; and the unhappy country was handed over to be pillaged and destroyed by the vizir and his English allies. He soon afterwards died, and was succeeded by Mirza Ali or Vizir Ali, who was set aside by the English on the reputed spuriousness of his birth, and Saadut Ali, the eldest surviving son of Sujah Dowlah, was placed on the throne. The annual subsidy to the English was at the same time raised to seventy-six lacs of rupees.

Transac-
tions at
Madras.

The Nabob Mahommed Ali, the first ally of the English, died in 1795, at the age of seventy-eight, and was succeeded by Omdut-ul-Omrah, his eldest son. Lord Hobart, governor of Madras, now determined to interfere with a strong hand in the affairs of the Carnatic, and, if possible, to rescue the country from the merciless exactions to which it had been exposed. These evils he describes to arise from the numerous loans of the English to the nabob. "Some of the principal houses of business in Madras," he observes, "or even some of the Company's servants, enter into an agreement with the nabob for the payment of sums which may have become due to the Company's treasury. They receive a mortgage upon a portion of the territory. To render this availing, they stipulate for the appointment of the manager of the territory. It is also requisite to establish an understanding with the military commanding officer of the district. And then the chain of power is complete. Then the unhappy ryots (husbandmen) are delivered over to the uncontrolled operations of men who have an interest in nothing but exacting the greatest sums in the shortest time; of men hardened by practice, and with consciences lulled to rest by the delusive opiate of interest upon interest." Lord Hobart prepared to remove these evils by assuming the management of the nabob's revenues, and, in short, the internal government of the country. But these arrangements being opposed by the supreme government, were not at this time carried into effect.

Invasion
of the ni-
zam's ter-
ritories by
Scindia.

The British had now acquired an undisputed ascendancy in India. The other ruling powers were the Mahrattas, under the peshwa and Scindia; the nizam of the Deccan, an ally and dependent of the British; and Tippoo, so greatly humbled and weakened by the late war as to be no longer formidable. Each of these powers was jealous of the others, though the balance of power was chiefly endangered by the ascendancy of the British. The nizam, after the conclusion of the war with Tippoo, was extremely desirous of forming an alliance with the English as a defence against the encroachments of the Mahrattas, who, he was well informed, were planning an inroad into his dominions, for the purpose of levying the contribution of the chout, amounting to one fourth of the land revenues, to which they laid claim, on condition of guaranteeing the remainder. The English, though bound to the nizam by a treaty offensive and defensive, refused to join in any alliance against the Mahrattas, who, under the command of Dowlut Row Scindia, Mahadjee Scindia being lately dead, now invaded the nizam's territories, and having defeated his army and shut him in one of his fortresses, dictated a treaty of peace to him, by which he ceded a country yielding thirty-five lacs of revenue, paid them a large sum, and gave up his minister as an hostage for the performance of these conditions.

Lord Mornington arrived in Calcutta as governor-general in May 1798, and he had scarcely been a month in

India when he ordered "an immediate attack" on Tippoo Sultan, not upon any tangible ground of offence, for it was not asserted that he had violated a single article of the last treaty, but upon vague accusations of alleged hostility and correspondence with the French, against whom the new governor-general had so thoroughly imbibed the prejudices of the day, that the mere suspicion of such a connection seemed sufficient to justify an "immediate attack" on his once formidable but now humbled power. Tippoo, as the event too fatally for himself proved, was unprepared for war. Stripped of half his dominions and revenues by the last treaty, he had not the means of maintaining war; whilst the power of his rivals was formidably increased, and their numerous and well-appointed armies, and extended dominions, justly excited the dread and the jealousy of the native powers, and probably of Tippoo amongst others. But the humbled king of Mysore was no longer himself an object of jealousy and dread; the last treaty was dictated by a victorious army at the gates of his capital; its terms, from his unprovoked aggression of the British allies, were necessarily severe, and no circumstance had since occurred to justify the British in exacting additional securities from the fallen prince. That he was the enemy, the natural enemy, to use a common and much abused phrase, of the foreigners who now trampled on the independence of India, no one can doubt. They were his rivals in the great contest for the dominion of the country; they were the gainers, he the loser, in this game of ambition; and who can doubt, that in such a situation he should feel the stings of disappointed pride, and that he should hate the English, as it was clear that they hated him, from their continual and unmeasured abuse of him? But whatever might have been the feeling of Tippoo towards the British, certainly no hostile act was proved against him, nor any thing beyond vague surmise. The governor general, finding he could make no immediate attack on the sultan, secretly proceeded with his military preparations, and as these advanced, his surmises were converted into certainty, and he rose in his demands. His views were at first limited to the establishment of an English resident at Seringapatam, and to the dismissal and perpetual exclusion of all the French from his armies and dominions. He now insisted, in order to prevent all communication by the sea-coast with the French, on the cession of the maritime province of Canara, and the payment of a considerable sum of money by Tippoo to defray the expense of the military preparations for his own destruction. In answer to these arrogant demands for additional securities, Tippoo referred to the existing treaty between the parties, and expressed the greatest surprise at the measures of precaution and self-defence adopted by the Company. The governor-general construed this reply into a new proof of hostility, and accused him of prevarication, falsehood, and criminal evasion; and Tippoo, alarmed, as he well might be, by the great military preparations of his known enemies, despatched two natives along with a French officer on a mission to the executive directory of France. The governor-general now resolved to commence the war, and to raise his terms; to exact as the price of peace the cession of one fourth, and, if any decisive military advantage should be obtained, one half, of Tippoo's whole dominions, and the payment, in addition, of two crores or twenty millions of sicca rupees, equal to L.2,250,000. Three armies were now assembled for the invasion of Mysore, namely, the army of General Harris at Velore, which was to advance from the east; the army of General Stuart at Cananore, on the western coast; and a force under Colonels Read and Brown in the southern districts of the Carnatic. On the 9th of March the army made its first united movement, and in the course of its advance experienced no serious resistance. The greatest obstacle to its progress arose from the want of provisions, and an adequate supply of carriages.

Hindustan. Adminis-
tration of
Lord Wel-
lesley.
War with
Tippoo,
1798.

Hindustan. All these difficulties were, however, overcome; and on the 5th of April the united army took up its position for the siege of the capital, exactly one month after it had crossed the frontier. Tippoo made a last and vain appeal to his enemies. But the governor-general was now resolved on the conquest of the country. His views expanded with the success of his arms; and towards the end of April he declared his opinion, that "it would be prudent and justifiable entirely to overthrow the power of Tippoo;" and "that the power and resources of Tippoo Sultan should be reduced to the lowest possible state, and even utterly destroyed, if the events of the war should furnish the opportunity." On the 3d of May a practicable breach was made, and next day the assault took place, which, notwithstanding an obstinate defence, was successful at every point. The assailants, carrying every thing before them by the impetuosity of their attack, met over the eastern gateway; and the palace, in which were the family of the sultan and a body of his most faithful adherents, was the only place within the fort that still held out. From motives of humanity, the English were extremely averse to expose its inmates to the horror of an assault, and they at length succeeded in effecting its peaceable surrender. Major Allan, who was admitted to the apartments of the young princes, endeavoured, by every expression of tenderness, to soothe the agitation of their minds. They were conducted to the presence of General Baird, who assured them, in the kindest manner, of protection from violence and insult, and gave them in charge to two officers, to be conducted to the head-quarters of the general. The sultan lost his life in the defence of his capital, and his body was found amidst heaps of slain. He had been repeatedly wounded in the course of the conflict; and his attendants having placed him in his palanquin, he was observed by the English soldiers who first entered. One of them, in attempting to pull off his sword-belt, which was very rich, received a wound from the sultan, who still held his sabre in his hand; on which, putting his musket to his shoulder, he fired, and the sultan, receiving the ball in his temple, expired.

Defeat and
death of
Tippoo.

The kingdom of Mysore, which was now in possession of the English, was partitioned amongst the allied powers. The English and the nizam received equal portions of the conquered territory, and a smaller portion was reserved for the Mahrattas. The possessions of the sultan on the Malabar coast, the district of Coimbatore and Daramporam, the whole country which lay between the Company's territory on the eastern and western coasts, the passes of the Ghauts, the district of Weynaad, and the city and island of Seringapatam, were surrendered to the British, who now occupied the country from sea to sea. A territory of equal revenue was ceded to Nizam Ali, in the districts of Gooty, Gurrumcondah, and the tract of country which lies along the line of the great forts of Chittledroog, Sera, Nundydroog, and Colar, with the exception of the forts. The territory ceded to the Mahrattas, from one half to two thirds of the other portions, was to include Harpoonelly, Soonda above the Ghauts, Annagoody, and some other districts; also the territory, though not the fortresses, of Chittledroog and Bednore. The remaining portion of the sultan's territories was erected into a separate state, over which was placed a descendant of the ancient rajahs, who had been retained in confinement by Tippoo and his father; with such provisions, however, as really vested the whole powers of the new state, both civil and military, in the hands of the English. The treasures of Tippoo, amounting to sixteen lacs of pagodas (L.640,000), and his jewels, valued at L.360,000, were divided amongst the troops. The fortress of Vellore was commodiously fitted up for the future residence of the royal family, to whom, and to all Tippoo's confidential servants, such pensions were assigned.

VOL. XI.

ed, that they were no less surprised than gratified by the *Hindustan.* liberality of the conquerors.

The transactions of the East India Company's servants with the native princes of India consisted in continual encroachments, until at length they engrossed both the civil and military powers of the state, and reduced the sovereign to a mere pageant. The first step was the subsidiary alliance, by which they placed a resident at the court of the native prince, with a body of British troops for the defence of his dominions. Thus they acquired the power of the sword, and might at any time also usurp from the native ruler the civil administration of the country. Under this system of progressive ascendancy, the native princes were seen in every stage of degradation. A treaty had been recently concluded with the nizam, by which he agreed to dismiss a force under French officers, which he had hitherto maintained, and to receive and to pay a British force in its stead, whose aid, it is certain, was absolutely necessary for the defence of his dominions. This was therefore the commencement of British ascendancy in that country. In Oude the military power had long been vested in the Company; and the country was languishing, and in some parts reduced to desolation, by the mal-administration of the nabob, and the still increasing extortions of his English allies. The disorder of the finances, and the oppression and complaints of the people, always afforded a pretext for interference; and though the affairs of Oude, as the directors supposed, had been permanently settled by a definitive treaty which Sir J. Shore concluded at Lucknow in 1798, by which they expressed their satisfaction that not merely an immediate payment of twelve lacs of rupees had been secured, but an annual increase of upwards of twenty lacs, yet it was now resolved by the Marquis Wellesley to overturn all these arrangements, and to take from the nabob the whole civil and military power of the country in form, as had already been done in substance. The governor-general, that he might save appearances, and avoid any recourse to actual force, was desirous to obtain from the nabob an abdication of his sovereignty. But he manifested the strongest aversion to relinquish his dignity and power. He reasoned, he remonstrated, he entreated in the most humble terms; and though he was in the power of the British, he refused, in defiance even of threats, to commit such an act of flagrant dishonour as to sign away the inheritance of his fathers. The governor-general was highly incensed at this display of dignity by the fallen prince, which somewhat disconcerted his plans, and the nabob was alternately cajoled and threatened. He still remained firm, and repelled every proposition for the voluntary resignation of his dignity. At last a middle course was adopted. The annual contribution imposed on Oude by the treaty of Sir John Shore was seventy-six lacs, the additional expense of the troops which he was now to maintain was 5,412,929, together 13,012,929 rupees, equal to L.1,463,953 sterling. It was now agreed that he should cede in perpetuity to the English, a territory yielding revenue to this amount, which was not much less than two thirds of his dominions, and that he should still continue the nominal sovereign of his remaining possessions. A treaty to this effect was accordingly concluded. In this transaction we may trace throughout, the two parties, in their distinct characters of the oppressor and the oppressed; on the one side fear, supplication, humility, grief of heart; on the other coldness, cruelty, haughtiness, all the harsh features and austere policy of absolute power; and we have given this brief sketch as an illustration at once of the decided ascendancy of the British in India, and of their policy in using or abusing that ascendancy for the overthrow of the native powers. By the same authority, the nabob of

Arbitrary
conduct of
the Com-
pany to
the native
powers.

Hindustan. Surat, the nabob of Arcot, against whom a lucky discovery was made of a criminal correspondence with Tippoo, and the rajah of Tanjore, were all dethroned, and pensions assigned them for their support. The badness of the government was still urged as a reason for these measures; and if this was the motive, and the increased happiness of the people the consequence, they merit praise instead of blame. Yet some suspicion must attach to the motives of those who, after the death of Fyzoolah Khan, could transfer the flourishing country of the Rohillas from the mild sway of its lawful rulers to the misrule and oppression of the nabob of Oude. A bad was here substituted for a good government, and a happy people delivered over to merciless extortion. Besides, if good government was the object, how greatly would it have been promoted by a remission of the heavy contributions levied by the English? But these were still increased; and it was the amount of these exactions, as well as the mode of raising them, which oppressed the country.

The Mahratta powers.

The Mahratta powers, namely, the peshwa, the nominal head of the confederacy, whose capital was Poonah, the rajah of Berar, Holkar, and Scindia, now remained the only rivals of the English for the dominion of India; and it was the policy of the Marquis Wellesley, as he himself explains at large in his correspondence with the residents in India and the directors at home, to form subsidiary alliances with them, on the same terms as with the other states of India; namely, that a British force should be permanently stationed within their dominions, and that they should assign a sufficient quantity of land for its maintenance and pay. The effect of this alliance, as indeed its object, as stated by the marquis, was to secure the dependence of the different states of India on the British power. "The measure of subsidizing a British force, even under the limitations which the pasha has annexed to that proposal (namely, its being stationed without the limits of his dominions), must immediately place him in some degree in a state of dependence on the British power." This effect was very plainly seen by the Mahratta princes, as well as by the governor-general; and accordingly, though the arrangement was very zealously pressed upon the peshwa, as well as on Scindia, it was steadily rejected by both, until the former was reduced by necessity to accept the alliance of the British on their own terms. This necessity was brought about by contentions amongst the Mahratta chiefs, Holkar and Scindia, for political ascendancy in the court of Poonah. Mahadjee Scindia, who was the founder of the family, was the son of Ramojee Scindia, whose humble employment at the court of Poonah was to carry the peshwa's slippers, but who afterwards rose to eminent rank, and was known as an enterprising soldier. Mahadjee was also a soldier, and was present in the fatal battle of Paniput, from which he narrowly escaped with a severe wound in his knee by a battle-axe. He afterwards acquired land and troops, and rose, as the power of the peshwa declined, to the rank of an independent chief. He died at Poonah in 1794, leaving to his grand-nephew, Dowlut Row Scindia, only thirteen years of age, vast possessions and a well-disciplined army.¹ Mulhar Row, the founder of the Holkar family, was born about the year 1693. He was at first a keeper of sheep, afterwards a commander of horse in the service of the peshwa, and at last one of the great military leaders of the Mahratta confederacy. He died in 1766, at the age of seventy-six years, with the character of a plain and generous soldier. Mulhar Row Holkar had only one son, Kundee Row, who was slain, some years before the battle of Paniput, at the siege of Kumbhere. This prince had

married the renowned Ahalya Bae, by whom he had one son and one daughter, both of whom died, the daughter on the funeral pile of her deceased husband. Ahalya Bae succeeded to the sovereignty, and assumed as the commander of her army, and her minister for those duties which a female could not perform, Tukajee Holkar, the chief of the tribe, though not related to Mulhar Row. The administration of Ahalya Bae, who is celebrated by Sir John Malcolm as a shining example of great qualities and amiable virtues, was fraught with blessings to her subjects, the country enjoying under her rule more than thirty years of prosperity and peace. Tukajee Holkar, who reigned till the year 1797, left four sons, Cashee Rao, Mulhar Rao, Eithojee Holkar, and Jeswunt Rao Holkar. The succession was disputed by the two elder brothers, who repaired to Poonah for the decision of the peshwa. The influence of Scindia was at this time paramount at Poonah; and having made his terms with Cashee Rao, he surprised and murdered Mulhar Rao, with all his attendants, at Poonah, in September 1797. The wife of Mulhar Rao left a posthumous child, Khundeh Rao, of whose person Scindia got possession, and retaining Cashee Rao in a state of dependence, proposed to govern the dominions of Holkar in his name. The two brothers, Eithojee and Jeswunt Rao, who were at Poonah at the time of the murder, made their escape, the first to Kolapoor, where he was taken, sent to Poonah, and executed; the latter to Nagpoor, where he was arrested and thrown into confinement. Having made his escape, he fled to Mehysser on the Nerbuddah. Here he collected a band of adventurers, and in October 1801 was enabled to fight a battle with Scindia, in which he was defeated with the loss of his baggage and artillery. Before the middle of 1802 Holkar had assembled a new and well-disciplined army. He insisted on the release of the posthumous child Khundeh Rao, the head, as he proclaimed him, of the house of Holkar; and to enforce his demand, he advanced with his troops from Malwah towards Poonah. Scindia collected his army, and on the 25th of October a battle was fought, in which Holkar obtained a decisive victory.

It was during these transactions that the governor-general deemed the occasion favourable for drawing the policy of Mahratta chiefs into a subsidiary alliance with the British; and it was proposed to Scindia that he should receive a British force into his dominions, that he should cede to the Company a territory sufficient to maintain this force, and that he should admit the arbitration of the British in all disputes with the nizam and with the other states of Hindustan; and the governor-general explains, that if he consent to receive a British force within his dominions, "the arbitration of the British government will necessarily be admitted to an extent proportioned to the ascendancy which that government will obtain over Scindia under the proposed engagements, and to the power which it will possess of controlling his designs." Was this system, we may ask, of general alliance and subjection to the British, now proposed by the governor-general, a scheme of benevolence for establishing universal peace throughout India, or one of ambition? War is no doubt the great scourge of humanity; and if it could be superseded by the peaceable arbitration of neutral powers, a great blessing would be conferred on mankind. But it is vain to suppose that the potentates of the earth will voluntarily submit to the curb of reason; and vain was it therefore for the governor-general to endeavour, by persuasion or address, to draw the powers of India into an alliance which would reduce them from the rank of independent princes

¹ *Memoir of Central India*, by Sir John Malcolm, vol. i. chap. v.

Hindustan to mere dependents on the British. That the entire ascendancy of the Company's government in India would, in preventing intestine war, have been, as it has since proved, highly beneficial to India, no one could doubt; though, before we can ascribe to the governor-general these benevolent views, we must be convinced that the peace of India was the end, and the ascendancy of the British only the means. But, whatever may have been his motives, it is clear that the end, namely, the supremacy of the British, was to be gained, not by peaceable means, but by the sword; that the immediate tendency of his policy was war;—and, in point of fact, it is by war that all India, happily we sincerely believe for the people, has been at length brought under the control of one ruling power, and that universal peace now reigns over that vast continent. It was not yet time, however, for this desirable consummation; and the Mahratta chiefs, as might have been supposed, received with decided aversion the propositions of the governor-general, which amounted to nothing less than a renunciation of independent power. In the defeat of Scindia, however, by Holkar, and the advance of this latter chief to Poonah, the peshwa saw the overthrow of his power; and he quitted his capital, leaving in the hands of the British resident a preliminary engagement, by which he agreed to receive into his territories six battalions of troops, with their proportion of artillery, and to cede a territory for their support either in Gujerat or the Carnatic, yielding twenty-five lacs of rupees.

Treaty of Bassein, and war with the Mahratta chiefs.

This treaty, in which it was further agreed that the peshwa should, by the aid of the British, be restored to his dominions and to his sovereign authority, was formally signed at Bassein on the 31st of December 1802; and immediately Sir Arthur Wellesley, on a report that Poonah was in danger of being burned, advanced on that city by a rapid and unexpected march, with a body of cavalry. At the approach of the British, Holkar's disorderly bands fled with precipitation, and soon abandoned the territory of Poonah; and the deposed prince returned in triumph to his capital, amid the acclamations of the people. The treaty of Bassein, and the entire ascendancy of the British at the court of Poonah, excited the jealousy of the other powers; and Scindia and the rajah of Berar now entered into a confederacy for repressing this desire of encroachment on the native states. But their motions were narrowly watched by the British; and their armies having taken hostile positions, from which they refused to withdraw, the British were induced to take the field. A vast force was collected. An army under General Lake assembled on the north-western frontier of Oude, which on the 7th of August marched from Cawnpore, and crossing Scindia's frontier on the 28th, took by assault the fort of Allyghur, and on the 9th of September totally defeated, about six miles from Delhi, the Mahratta force, formerly under Perron, a French officer, and still commanded by one of his countrymen, with the loss of all the artillery and baggage. General Lake entered Delhi, evacuated by the enemy on the 14th, and paid his respects to the Great Mogul Shah Aulum, afflicted with age, infirmities, and poverty, in all respects a touching spectacle of fallen dignity. On the 4th he reached Agra, which was taken by assault after a severe contest; and on the 31st defeated, in the well-fought battle of Laswaree, the remaining force of Scindia; and thus in the course of three months overran all his territories in the region of the Jumna. Nor was General Wellesley, who now gave an early promise of that genius for war which was afterwards more fully displayed in the arduous conflicts of Europe, less successful in the south. His first operation was the assault and capture of the strong fortress of Ahmednuggur on the 12th of August; after which, being apprised that the combined ar-

Successes of General Lake and Sir Arthur Wellesley.

mies of Scindia and the rajah of Berar meditated a march on Hydrabad, he concerted with Colonel Stephenson, who commanded a separate corps, a joint attack on the 24th. In the mean time, apprehensive that the enemy meditated a retreat, he attacked with his own division alone the combined Mahratta armies, encamped on the Kaitra river, near the village of Assye, and obtained the victory after a sanguinary conflict, in which, out of 4500 men, the British lost 428 killed and 1138 wounded, and were entirely disabled from pursuing the enemy. Colonel Stephenson, who joined on the 24th, was sent on this duty, and was also instructed to attack Boorhanpore and Asseerghur, of which, and of all Scindia's territories in the Deccan, he took possession. The British arms were now turned against the rajah of Berar; his army was entirely defeated on the plains of Argau on the 29th of November. Colonel Stephenson, advancing to Ellichpore on the 5th of December, laid siege to the strong mountain fortress of Gawilghur, near the source of the Taptee, which was carried by assault. The British were equally successful in every other quarter. The country of Bundelcund was speedily reduced; a force from Bombay attacked Scindia's possessions in Gujerat; and a division of the Madras army the maritime province of Cuttack. The Mahratta chiefs now bethought of peace as their only refuge from impending ruin. A treaty was accordingly concluded with the rajah of Berar, by which he ceded to the Company the province of Cuttack, with the port of Balasore, to their ally the nizam, the country lying between his own frontier and the river Wurda to the eastward, and between his own frontier and the hills, in which are situated the forts of Gawilghur and Nernulla to the northward. By the treaty concluded with Scindia, he ceded in full sovereignty the country between the Jumna and the Ganges, to the northward of the territories belonging to the rajahs of Jeepoor, Joudpore, and Gohud, the fort and territories of Barooch, of Ahmednuggur, and all the possessions which he held on the south side of the Ajunttee Hills to the Godavery river. Provision was made for the independence of all those minor states in the region of the Jumna which had joined the English in the late war. Of these cessions, it was agreed that the territory situated to the westward of the Wurdah, and to the southward of the hills on which were the forts of Gawilghur and Nernulla, together with the territory between the Ajunttee Hills, should be given to the nizam; that the fortress of Ahmednuggur and its territory should belong to the peshwa, and that the English should have the remaining portion. The minor princes near the Jumna, namely, the rajahs of Bhurtapore, Joudpore, Jeepoor, Machery, and Boondi, the ranah of Gohud, and Ambajee Rao Englah, now became dependents on the British, by whom they were guaranteed in the possession of their dominions, they defraying any charge which might be incurred. Scindia, now weakened by the loss of territory, was really anxious to secure a subsidiary alliance with the English for the security of his remaining dominions against the designs of Holkar. It was agreed that six thousand infantry, with the usual complement of artillery, should be allotted for his defence; that they should be maintained by the English from the revenues of the ceded territories; and that they should be stationed near the frontier, but not within his dominions. It was further agreed, as formerly in the treaty of Bassein, that the British should not in any case interfere between him and his subjects, but that the subsidiary force, if required, should aid in suppressing rebellion and internal disturbances; a condition of doubtful policy, since it evidently implies that the British were to stand still, the quiet spectators of any cruelties the Mahratta chief might inflict upon his subjects; but, the moment they took up arms in their defence, they were to aid in crushing them, as disturbers of the public peace.

Treaty with the Rajah of Berar and with Scindia.

Hindustan.
Operations
against
Holkar.

The short period of tranquillity that succeeded the peace with Scindia was speedily interrupted by Holkar, who, though he kept aloof from the confederacy of his countrymen, with an indifference which seemed to argue at once a deficiency of patriotism and a want of sound policy, was, nevertheless, alarmed by the success of the British arms, and his whole conduct evinced his determination to try the fortune of war. His power and resources had gradually been increased, like that of the other chiefs, by the introduction of European officers into his army, and by an improved system of discipline, which he had established. He was, besides, protected by the nature of his country, which is very mountainous, and, during the rains, impassable from jungles and morasses. His skill in maintaining the predatory warfare, so congenial to a Mahratta army, was far superior to that of the other chiefs, whose ruin had so fully taught him the danger of any regular engagement with European troops. Thus, although his territories were invaded on all sides by detachments of the Company's forces, he constantly eluded their attacks; and, by the singular rapidity of his movements, he was enabled suddenly to assemble almost his whole force, and overpower whatever detachments he might find at a distance from support. In this situation, the troops under Colonel Monson were surprised. This officer, in concert with Colonel Murray, who invaded Holkar's dominions from Gujerat, and captured Indore, the capital, without much opposition, had advanced fifty miles beyond the Mokundra Pass, towards the Chumbul, when, alarmed by the fear of his supplies running short, he resolved to retreat. Being betrayed by his guides, and deserted by part of his troops, he was attacked by a superior force under Holkar himself, before which he was forced to retreat towards Agra, through a country impassable from the rains, and destitute of provisions. After several disastrous conflicts, during a retreat of seven weeks, which degenerated into a flight, the greater part of his guns, and the whole of the baggage and military stores, were lost. A few only of the troops reached Agra at midnight, in a state of extreme distress; the greater part had been overtaken in their flight, and were either massacred, or cruelly mutilated, by their ferocious pursuers.

Colonel Willot of the Bengal artillery was almost equally unsuccessful in an attack which he had planned against a strong post in the interior: he failed in the attempt, and soon after died of the wounds he had received. It was in Bundelcund, and the country of the Rohillas, that Holkar received the most considerable checks, which produced a reverse in his fortunes. From both those territories he was completely driven by Lieutenant-colonel Fawcett and General Smith. On the escape of Colonel Monson to Agra, Holkar advanced with his whole army to Muttra, whither he was followed by General Lake, who arrived at Muttra on the 1st of October 1804, Holkar retiring as he advanced. Here he put in practice a stratagem, which had nearly gained for him great advantages. Leaving his cavalry to engage the attention of the British general, he proceeded with his infantry in secret and by forced marches, and on the 8th he appeared before Delhi, on which he opened a heavy cannonade. Next day he erected breaching batteries, and made a determined assault. But this and a subsequent attack was repelled with such determined gallantry by the small garrison under Colonels Ochterlony and Burn, that he desisted from all further attempts, and departed during the night with his whole force.

Parties of his cavalry had been repeatedly defeated by Lord Lake; but the rapidity of their movements as often saved them from destruction, and it was not till the decisive battle of Deeg, on the 13th of November, that the main strength of this enterprising chief was completely broken. At this place his army, trusting to the great strength of its position, behind successive ranges of bat-

teries, was induced to hazard a general action. From Hindustan. these different batteries, which extended to the depth of two miles, they were successively driven by the gallant General Frazer, who had the credit of forcing a post which had been deemed impregnable, and which at this period was defended by twenty-four battalions of infantry and 150 pieces of cannon. In this brilliant achievement the general received a wound in the leg, of which he afterwards died, and was carried off the field. The completion of the victory thus fell to Colonel Monson, who now saw complete vengeance inflicted for his past disasters, and for the unexampled cruelty of his enemy, 2000 of whom were killed, either in the battle or during the retreat. An immense number was wounded, and amongst these many considerable chiefs; whilst eighty-seven pieces of cannon fell into his hands, which partly consisted of the same guns which he had himself lost during his disastrous retreat to Agra. The important fortress of Deeg was besieged and taken at night, by assault, on the 23d of December.

Had Holkar confided merely to his effective force in the field, his cause might have now been regarded as desperate. His boldness, however, and his unexampled success, had gained him the support of several of the native princes. Among these he had seduced the rajah of Bhurtpore, an ally of the British, and the chief of the celebrated caste of the Jauts, the most warlike tribe in upper India. General Lake was therefore obliged to concentrate his army, and to employ it in the reduction of Bhurtpore, a fortress which experience has proved to have been the strongest and most impregnable in the whole peninsula. Whilst thus employed, the dispersed troops of Holkar had time to rendezvous in distant quarters, and were successful in cutting off his supplies of provisions, and in plundering the surrounding districts, by that predatory mode of warfare for which the Mahrattas have always been celebrated. Scindia, also, who had been engaged in continual disputes with the British respecting the treaty which had been concluded, now openly showed his hostile dispositions by invading the territories of the British allies, by attacking and plundering the camp of the British resident, and by his ill-concealed correspondence with Holkar, whom he now openly joined.

The reduction of Bhurtpore, defended by the indefatigable efforts of Holkar, by its intrepid garrison, and its Bhurtpore. own natural strength, proved the most arduous enterprise which the British troops had ever undertaken in Asia. The success of the besieged in repelling four different assaults animated them with fresh courage and intrepidity. The rajah and his whole tribe were united by the ties of blood, as well as of civil authority. They laid claim to a high caste among the natives, which they knew must be forfeited for ever by unconditional submission. Unfortunately these were the only terms which General Lake, in the peremptory instructions which were given for its reduction, was permitted to accept. The rajah, therefore, having collected in the fort his women, his children, and his treasures, resolved to bury them all with himself under its ruins, rather than submit to terms which were deemed as disgraceful to his religion and his rank, as they were mortifying to his feelings as a soldier. Compelled by the orders of his superior, and undaunted by all the past disasters which the troops had already suffered, General Lake resolved to hazard another attempt, which was equally unsuccessful with all the others. In the official account given of this last attack, it is said, "the bastion, which was the point of attack, was extremely steep, the resistance opposed to them was vigorous, and as our men could only mount by small parties at a time, the advantages were very great on the side of the enemy. Discharges of grape, logs of wood, and pots filled with combustible materials, immediately knocked down those who were ascending; and the whole party, after having engaged in an obstinate contest

Hindustan—for two hours, and suffering very severe loss, was obliged to relinquish the attempt, and to retire to our trenches.” The loss of the British army in this last assault, and that of the 20th, amounted to 300 killed, and 1564 wounded; its whole loss, during the different attacks, amounted to upwards of 3000 of the bravest of our troops, whilst the unconditional surrender of the place, though the ultimate object of all these perilous attempts, was never attained. The rajah, however, again proposed the terms he had formerly offered, and consented to pay three lacs of rupees to the army, and the expenses of the war. Hostages were given for the regular discharge of these sums, at different instalments. Thus the last prince in India who resisted the British arms was found to have made the most glorious defence of his independence, and to have secured for himself the most honourable terms. Holkar, unable any longer to face the British troops, was reduced to the condition of a fugitive; and flying from place to place, often beaten, and at last deserted by almost the whole of his troops, was obliged to escape with a retinue so scanty as was hardly sufficient for the protection of his person.

Arrival of Lord Cornwallis. Pacific policy. The directors of the Company in Europe, though they were dazzled for a time by the splendid successes of the British arms, were at length startled by the warlike policy and prodigal expenditure of the Wellesley administration; and, with a view to retrieve their embarrassed affairs, the Marquis Cornwallis was sent out as governor-general to Calcutta, where he arrived on the 30th of July 1805. He entirely disapproved of the system of subsidiary alliances adopted by his predecessor, by which the British were entangled in the labyrinth of Indian politics. He censured in strong terms the treaty of Bassein, which reduced the British, as he states, to “the alternative of mixing in all the disorders and contentions incident to the loose and inefficient constitution of the peshwa’s administration, or of suffering the government and dominion of his highness to be completely overthrown by the unrestrained effects of general anarchy and rebellion. Under such circumstances,” he adds, “the alliance with the peshwa, far from being productive of any advantage to the Company, must involve us in inextricable difficulty, and become an intolerable burden to us.” In pursuance of these views, he resolved, as soon as Scindia should release the British residency, to conclude a treaty with him, and to restore to him Gualior and Gohud, the points in dispute. At this critical period Lord Cornwallis, languishing under age and infirmities, expired. But his successor, Sir George Barlow, entered entirely into his views. A treaty was concluded with Scindia on the terms proposed; the British agreed to renounce all interference, by treaties or otherwise, with the rajahs of Odeypoor, Joudpoor, Kotah, and other chiefs, the tributaries of Scindia, in Malwah and Mewar. A treaty was concluded with Holkar, on the 24th of December 1805, by which all his former territories were restored to him, both on the north and on the south of the Chumbul. According to his system, Lord Cornwallis dissolved all the alliances which had been formed with the petty princes of India, several of whom had aided the British in the late contest. Lord Lake earnestly remonstrated in vain against this abandonment of the British allies, several of whom were now left, contrary to the faith of protecting treaties, to the vengeance of the Mahratta chiefs, Holkar and Scindia.

Nepaulese war. From the year 1805, when a general peace was established by Lord Cornwallis, to the year 1813, when Marquis Hastings assumed the government, the political relations of the Company with the native powers had undergone little alteration. The tranquillity which prevailed was, however, more apparent than real; and it was naturally to be supposed, indeed, that the widely extending domination of a foreign power would excite the jealousy of the native princes of India. Such of them, accordingly, as re-

tained any sense of national honour were naturally hostile to the British, and were well disposed to unite against them as the common enemies of Indian independence. In 1814 the war with the Nepaulese commenced, and in the outset the reverses sustained by the British in their attempts to penetrate into the hill country strongly excited the hopes of the native princes. In the following year, the valour and military talents of Sir D. Ochterlony brought that war to a brilliant close; and the bravery and discipline displayed by the troops in the course of the campaign renewed among the Indian princes the former impression of their invincible superiority. Whatever might be their ulterior views, therefore, they were compelled for the present to temporize, and to soothe their conquerors by an outward show of humility and peace.

A more favourable opportunity, as they conceived, soon occurred for successful resistance to the British power. **Incursions of the Pindarees.** From the constant wars and commotions in which India had from time immemorial been involved, it happened that a great proportion of the native population were trained to habits of disorder and military license. At the general settlement concluded in 1805, it was naturally supposed that those bands of adventurers, having no longer any scope for their predatory enterprises, would betake themselves to pacific pursuits, and would thus be gradually dissolved among the mass of the people. It happened otherwise. Those hordes of freebooters, known under the general denomination of Pindarees, improved both in strength and union, and Scindia and Holkar, in whose neighbourhood they were settled, if they did not openly abet them, made no active efforts for their suppression. The nature of their force may be shortly described. It consists of a species of light cavalry, which was formerly attached to the native armies, in the same manner and for the same purpose as the Cossacks are to the armies of Russia. Their horses were trained to long marches and hard fare, it being their object to plunder the country, and to elude pursuit by the celerity of their movements. They were generally armed with a bamboo spear, from twelve to eighteen feet long; every fifteenth man carried a matchlock; about four hundred out of every thousand were well mounted; of the remaining six hundred, four hundred were indifferently mounted, and the rest were slaves, attendants, and camp-followers, mounted on wild ponies, and keeping up with the corps as they best could. About the year 1814, these predatory bands comprised about 40,000 horse, who followed plunder as their mode of subsistence, and were indeed a most formidable species of gang-robbers; but, like other robbers and murderers on a great scale, they assumed all the form and pomp of military array. The strength and numbers of this disorderly mass were daily increasing by deserters from Holkar’s irregular bands, and from the loose cavalry establishments of Scindia and others, where they were retained by no tie but that of present advantage, and where their pay was always in arrear. The central situation of the Pindarees, at an equal distance from the three presidencies, rendered their hostility still more formidable, and enforced on the British the necessity of maintaining an extensive line of defence, which was always penetrated by those flying hordes, and the territories of our allies exposed, in consequence, to annual devastations. In 1808–1809, and in 1812, they carried their incursions into the British territories, and returned loaded with spoil. The fame of these successful exploits recruited their bands, and enabled them to extend their ravages. In October 1815, a force of 8000 Pindarees crossed the Nerbuddah in a north-west direction, and dividing into two parties, they penetrated to the Kistnah, though they were watched, and one party was surprised by a body of infantry and cavalry, which did them, however, little damage. They were only deterred from cross-

Hindustan. ing into the Madras presidency by the swollen state of the river, along the fertile and populous banks of which they took their course, plundering as they went along, and committing every kind of enormity. In their return along the line of the Godavery and the Wurda, they passed the British positions, making good their retreat with an immense booty, and with utter impunity. A second expedition was soon planned, which, crossing the Nerbuddah, appeared on the western frontier of the district of Masulipatam, under the Madras presidency, on the 10th of March 1816. Next day they made a march of thirty-eight miles southward, plundering ninety-two villages, with every circumstance of unheard-of cruelty; and on the 12th they marched thirty-eight miles, plundering fifty-four villages. By the 17th May they had nearly all recrossed the Nerbuddah, loaded with spoil, and with scarcely any loss. During the twelve days that they had remained within the Company's territories, it was ascertained that 182 persons had been put to a cruel death, 505 were found severely wounded, and 3603 had been put to different kinds of torture.¹

War with
the Pin-
darees.

It now became necessary to adopt efficient means for protecting the country against these destructive visitations. For this purpose a defensive line of posts was extended along the Nerbuddah, and across the country for about 150 miles. This was, as usual, soon penetrated by the activity of the enemy, and various expeditions advanced southward for the purpose of plunder. By the singular activity of the different corps, and by a train also of fortunate accidents, almost all of these expeditions were intercepted, broken, and discomfited, so that very few of the plunderers made good their retreat. It was resolved, however, in the year 1817, to commence offensive operations; to attack the enemy in their native haunts, and either to exterminate them, or to drive them from the advantageous position which they occupied, in the very centre of India. The season of inaction was accordingly spent in making preparations for a great military effort; and, by the end of the rainy season of 1817, a numerous and well-appointed army was ready for the field. The plan of the campaign was, that the armies of the different presidencies should advance northward, and gradually converging to a common centre, hem in, on every side, the devoted territory of the freebooters.

War with
the Pesh-
wa.

But whilst this plan was in progress, it was interrupted, and part of the troops engaged in executing it were suddenly recalled, by the unexpected hostility of the native powers. Bajee Rao, the peshwa or prince of Poonah, who had long been impatient of the British yoke, availed himself of this opportunity to make a fresh attempt to recover his independence. With a view of more vigorously prosecuting the war against the Pindarees, all the troops had moved northward, with the exception of a brigade which had been left at Poonah; and it was to overpower this small body of troops that the peshwa's first efforts were directed. They were completely unsuccessful; he was repulsed at all points by the steadiness of the Company's troops. This action took place on the 5th of November. On the 13th, the British were joined by General Smith's division, which had advanced on the Godavery, on an understanding, that if he did not hear daily from the resident at Poonah, he should countermarch to that place. It was resolved to attack the enemy's camp next day; but it was found deserted. General Smith immediately commenced an unremitting pursuit of the peshwa, who was hunted from place to place by the different corps of the British army, until he at length deemed it prudent to surrender. He was deposed from

his throne; a residence in a particular city was fixed upon Hindustan. for him; and a pension of about L.100,000 per annum assigned him for his support. His dominions were of course taken under the administration of the British.

The rajah of Nagpoor, Appa Saheb, who was held in War with the same thralldom by the British, pursued a similar course, the Rajah of Nagpoor. and with the same results. On the 26th of November, at sunset, he attacked, with a great superiority of force, the brigade left at the residency, which was in consequence in great peril. A doubtful contest was maintained through the night, and next day the attack on the British was renewed with fresh vigour. Under every disadvantage those attacks were finally repulsed, and the weak prince, Appa Saheb, taking fright, sent to ask forgiveness from his enemies. The conditions offered him were, that his territories should be placed at the mercy of the British government; that he should give up all his artillery, disband his troops, and come in person as a hostage into the British camp; on an understanding that if he acceded to these terms, the former relations between him and the British would be restored; it being at the same time understood that he should cede part of his territory, and that due provision should be made for a greater degree of internal control over his future movements. Being threatened with an immediate attack, he came to the British camp with a few attendants. His troops, as if to shame their pusillanimous prince, fought an unsuccessful battle for his rights and independence; after which the city of Nagpoor, with its fort, was surrendered to the conquerors, and this second war was brought to a triumphant close. Appa Saheb, afterwards repenting of his spiritless conduct, began to plot new schemes, when he was arrested by the British resident, and detained in close confinement. He found means to escape in the summer of the following year, and making good his retreat to the hills, where he was joined by a band of irregular followers, he distracted the country for a time by desultory hostilities. Having thus fled from his dominions, the conquerors determined to invest Bajee Rao, a grandson of Raghojee Bhonsla, with the sovereignty, and to take the internal administration wholly under their own control. It had been the professed intention of the Anglo-Indian government, according to its usual arbitrary mode of treating the native powers, to force the two independent chiefs, Scindia and Holkar, into an acquiescence with its views in regard to the Pindarees, and also the Patans, a species of infantry, better appointed, and more regularly disciplined, than the Pindarees, but associated together on the same unlawful principle of indiscriminate plunder. Scindia had been compelled to temporize, and finally to accede to the British propositions. The court and administration of Holkar were distracted by contending factions. The late prince, after the unfortunate issue of his war with the British, became deranged, and soon afterwards died. His heir, Mulhar Rao, was at the time under age; and Toolsye Bhye, the widow of Holkar, and now appointed regent, contended for supremacy with the Patan chiefs. Their views were entirely discordant, the queen-regent soliciting an alliance with the English, on condition of receiving a subsidiary force; a measure so strongly opposed by the military chiefs and the troops, that they conspired against Toolsye Bhye, and having seized her person, carried her to the banks of the river, where she was put to death. After this outrage, they prepared for war, and troops were concentrated in such hostile positions, that Sir John Malcolm judged it expedient to fall back. Having effected a junction with the corps under Sir J. Hislop, they attacked, on the 21st of December 1817, the army of Holkar, encamped at

¹ *Narrative of the Political and Military Transactions of British India under the Administration of the Marquis of Hastings.* By Henry T. Prinsep, chap. I. and v.

Hindustan. Mehedpoor, and advancing to close action under a severe fire of artillery, the enemy's troops gave way at all points, and the camp, artillery, and baggage, fell into the hands of the victors. Peace was sought and obtained by the Patan chiefs, who ruled in the councils of Holkar; they accepted the protection and alliance of the British; and thus they enrolled themselves amongst the dependents and tributaries of the new sovereigns of India.

The main object of the war, which was the destruction of the Pindarees, was not, in any material degree, impeded by these incidental contests. According to the plan proposed, the different divisions of the grand army proceeded northward, converging as they advanced for the purpose of surrounding the haunts of these freebooters, and preventing their escape. They were driven out of the province of Malwah, retiring as the British advanced; but were at length so effectually hemmed in, that in attempting to retreat they were intercepted at all points, and the greater part of them destroyed. The remainder were so humbled by fatigue and misery, that they were glad to submit upon any terms; and at length the three principal leaders surrendered on condition that their lives should be spared.

Settlement of the country. All open resistance being thus successfully put down, the more important task still remained of quieting and conciliating the country, overrun by lawless hordes of troops or banditti. The history of Hindustan is, from its earliest period, one unvarying scene of intestine violence, of war, rapine, rebellion, and bloodshed. For twenty years prior to the Pindaree war, these disorders had been increasing; and to still this intestine storm, to overawe the turbulent, and to settle on a permanent and equitable basis the conflicting claims to dignity, power, and property, which had arisen in a long period of trouble, when might was the test of right, was a task that required unusual prudence, firmness, and patience. This difficult and all-important duty now devolved on Sir John Malcolm, who to his glory as a warrior now added the still greater glory of a legislator and a statesman. Whilst he distributed his troops in such positions throughout the disturbed districts, as entirely to overawe the fiercer mercenaries and turbulent Arab soldiers, he conciliated the peaceable inhabitants by mildness, moderation, and justice. To all ranks, to the head of a village as well as to the sovereign of a kingdom, to the leader of a gang of robbers as well as to the commander of an army, he explained that his sole object was to establish the peace of the country. By kindness and conciliation he succeeded in reclaiming the Grassia, Rajpoot, and Bheel freebooters, and the discharged Patan mercenaries, accustomed to prey on the country. Persecuted and oppressed as outcasts and robbers, they were won by the generous confidence of Sir John Malcolm, who offered them pay in the British service, and employed the most notorious of the Bheels to guard his person and treasure, in which they proved invariably faithful. Thus the disorderly bands amongst the Pindarees and Patan soldiery, for many years the disturbers of India, were gradually converted into its industrious cultivators; and a great and happy change was effected in the habits of the people and in the aspect of the country. The several princes and rajahs of Central India were enriched by increased revenues and diminished expense. The troops maintained by Scindia were reduced from 39,000 to 22,000; and those maintained by the rebellious chiefs and tributaries, always ruinous to the country, were disbanded. His revenues were increased twenty-five per cent., and the expenses of collection reduced fifteen per cent. The revenues of Holkar were increased from four lacs in 1817, to sixteen lacs in 1819-1820. The condition of all the other inferior rulers and feudatories was improved in the same degree. "In 1817," says Sir John Mal-

colm, in his admirable work on Central India, "there was Hindustan. not one district belonging to Scindia that was not more or less disturbed; in 1821 there existed not one enemy to the public peace." Colonel Todd, the political agent of the British in the Rajpoot states, and who was present at the great pacification of 1818, describes, with his usual force, the desolate state of the country. From Jehajipoor westward to Komulmer, a space of 140 miles, he mentions that "all was desolate; even the traces of the footsteps of men were effaced. The babool (*mimosa Arabica*) and gigantic reed, which harboured the boar and the tiger, grew upon the highways; and every rising ground displayed a mass of ruin. Bhilwara, the commercial entrepôt of Rajpootana, which ten years before contained 6000 families, showed not a vestige of existence. All was silent in her streets; no living thing was seen, except a solitary dog, that fled in dismay from his lurking place in the temple, scared at the unaccustomed sight of man." Odeypoor, the capital of Mewar, which formerly contained 50,000 houses, had not above 3000 occupied; the rest were in ruins, the rafters being taken for firewood. Money was scarce, and the prince was obliged to borrow at the rate of thirty-six per cent. In the tracks near the Vindhya range and the Nerbuddah, where the Pindarees, Gonds, and Bheels had their homes, hundreds of villages were to be seen deserted and roofless. Of 3701 government villages which belonged to Holkar, only 2038 were inhabited in 1817. In 1818, 269 villages were restored; in 1819, 343; and in 1820, 508. These villages exhibit a lively portrait of an Indian community; and it is remarkable, that on the proclamation by the British of protection and peace throughout India, these communities instantly revived in their original structure, with all their native functionaries, who re-assembled at once from the different countries into which they had been scattered by the wars and revolutions of the last twenty years. Well may Colonel Todd exult with a generous enthusiasm on the revival of this oppressed country from desolation and misery. The commercial mart of Bhilwara rapidly rose from ruin, and in a few months contained 1200 houses. "Bales of goods, the produce of the most distant lands, were piled up in the streets lately overgrown with grass; and a weekly fair was established for home manufactures. The most enthusiastic proofs were afforded, that neither oppression from without, nor tyranny from within, could expel the feeling for the *bassota*, the land of their fathers. Even now, though time has chastened the impressions, we should fear to pen but a tythe of the proofs of the devotion of the husbandmen of Mewar to the *solum natale*. It would be deemed romance by those who never contemplated humanity in its reflux from misery and despair, to the 'sweet influences' of hope; he alone who had witnessed the day of trouble, and beheld the progress of desolation, the standing corn grazed by Mahratta horse, the rifled towns devoted to flames, the cattle driven to the camp, and the chief men seized as hostages for money never to be realized, could appreciate their deliverance. To be permitted to see these evils banished; to behold the survivors of oppression congregated from the most distant provinces, many of them strangers to each other, and the aged and the helpless waiting the lucky day to take possession of their ruined abodes, was a sight which memory will not part with." After mentioning that on a lucky day three hundred husbandmen, preceded by music and banners, marched into Kupasun, to take possession of their properties, and that above three hundred towns and villages were simultaneously re-inhabited, he adds, in a strain of just exultation, "Well might the superstitious fancy that miracles are abroad; for even to those who beheld the work in progression, it had a magical result; to see the

Reviving prosperity.

Hindustan waste covered with habitations, and the verdant corn growing on the fields, where lately they had roused the boar from his retreat. It was a day of pride for Britain. By such exertions of her power in these distant lands, her sway is hallowed; by Britain alone can this fair picture be defaced; the tranquillity and independence she has conferred, by her alone may be disturbed.¹

Petty
states of
India.

After the contest was brought to a close, the country was still overspread with disorderly bands of Arabs, Meckranies (from Meckran in Persia), Mewassies, and Patans; and the general result of the arrangements now adopted was the expulsion of these disturbers of the country, and the restoration of the just rights and dignities of Scindia and Holkar, as well as of a crowd of petty feudatories and renters, who were before the prey of freebooters. The same system was extended to the Rajpoot states to the north-west of Malwah and the Chumbul river. The petty rajahs who occupied this country were continually at war; and the country was besides laid waste by the predatory bands of Ameer Khan, Holkar, and Scindia, who, on pretence of espousing the quarrels, invaded and plundered the territories of the different chiefs. These evils had risen to such a height, that they were all desirous of being admitted into a federal union with the British government, offering in some cases half their dominions for protection. In 1818 they were admitted into this union, of which the British are at the head. They agreed, in the event of any future differences amongst them, instead of appealing to arms, to submit their differences to the arbitration of the British government. In this manner their country, freed from the scourge of internal war, has progressively improved. The military adventurers who fled before the victorious armies of Britain, were reduced to submission by the wise and conciliatory measures of Sir D. Ochterlony, combined with skilful military movements. The Patan battalions, with about 3000 horse, were taken into the British service, the officers being dismissed with pensions. These measures have been followed by the happiest effects. The wretched peasantry have emerged from their hills and fastnesses, the usual refuges of the oppressed, and have occupied their deserted villages; the ploughshare is again at work on a soil undisturbed for years, except by the hoofs of predatory horse; and although the fierce habits of war may occasionally recur, yet the foundation of improvement is laid. The daring robber, moulded by time and the force of circumstances, will gradually exchange his wild and disorderly habits for those of the peaceful cultivator, and commerce and industry succeed to scenes of desolation and war.

Policy of
the British.

A wise and beneficent policy on the part of the British would realize all those happy prospects. But Colonel Todd seems to doubt whether this line of policy will be adopted. He censures in strong terms the treaties which have already been concluded with the Rajpoot princes, by which they are laid under a heavy annual contribution, and their territories, to use Colonel Munro's expression, converted into rack-rent estates for the British. The rana of Odeypoor is bound to pay one half of his revenues for five years, and three eighths in perpetuity; which condition not only imposes a heavy burden on the cultivator, but lays the foundation for British interference in all the concerns of the tributary state, and for endless disputes in consequence, and finally, for the subjugation of the country. After observing that the dread of being incorporated with our empire prevails amongst this proud people, Colonel Todd observes, "With our present system of alliances, so pregnant with evil from their origin, this

fatal consequence, far from desired by the legislative authorities at home, must inevitably ensue. If the wit of man had been taxed to devise a series of treaties with a view to an ultimate rupture, these would be entitled to applause as specimens of diplomacy. There is a perpetual variation between the spirit and the letter of every treaty; and while the internal independence of each state is the ground-work, it is frittered away and nullified by successive stipulations; and these positive and negative qualities continue mutually repelling each other, until it is apparent that independence cannot exist under such conditions. Where discipline is lax, as with these feudal associations, and where each subordinate vassal is master of his own retainers, the article of military contingents alone would prove a source of contention. By leading to interference with each individual chieftain, it would render such aid worse than useless. But this is a minor consideration to the tributary and pecuniary stipulation, which, unsettled and undetermined, leaves a door open to a system of espionage into the system of their revenue accounts; a system not only disgusting, but contrary to treaty, which leaves internal administration sacred. These openings to dispute, and the general laxity of their government, coming in contact with our regular system, present dangerous handles for ambition; and who so blind as not to know that ambition to be distinguished must influence every vice-regent in the East; while deeds in arms, and acquisitions of territory, outweigh the meek eclat of civil virtue, the periodical visitations to their kingdoms will ever be like the comet's, 'Foreboding changes to princes.'" The rapid progress of the British dominion in the East too fatally confirms the truth and wisdom of these admirable remarks.²

The country of Lahore, or the Punjab, as far as the Runjeet Indus, is occupied by the rajah Runjeet Singh, who, in the year 1805, when Lord Lake had an interview with him, seemed to be one amongst many petty chiefs. But between this and 1812 he had subdued the whole country, and was proceeding to extend his power over all the petty chiefs as far as the Jumna, when he was opposed in 1808 by a strong military detachment of British troops stationed at Ludiana. A treaty was concluded in 1809, by which it was mutually agreed that the rajah should not encroach on the territory to the north of the Sutledge, nor the British on the territory to the south of that river.

The peace of India has since been interrupted by the Siege of Burmese war, and by the siege of Bhurtpore. The rajah, Bhurtpore, confiding in the strength of his fortress, committed several enormities in his government, such as the seizure of the infant rajah, and the murder of his uncle and followers; and he even treated the remonstrances of Lord Amherst with indifference or contempt. In these circumstances, the reduction of this formidable stronghold was essential to the glory of the British arms, on which former failures had left a stain. The siege was accordingly commenced with 25,000 efficient troops; and as no impression could be made by cannon on walls of clay sixty feet in thickness, they were thrown down by the explosion of a mine. The assault took place next day, the 17th January 1826, which was completely successful, with the loss of 163 killed, and 466 wounded. The principal works of the fortress have since been demolished.

The British rulers of India and the Burmese monarch Burmese had long been involved in mutual disputes, and these were brought to an issue in 1822, by a claim set up by the sovereign of the Burmese to the petty isle of Shapuree, in the province of Bengal, on the Chittagong frontier, and

¹ *Annals of Rajast'han*, vol. i. p. 482, 483.

² *Ibid.* vol. i. chap. viii. p. 122.

Hindustan. by aggressions on the British territory, which were repelled by a force stationed at Chittagong, whilst a large armament was sent to Rangoon, the naval arsenal of the Burmese empire, which was captured; and, after a series of hard-fought actions by the British, who endured much privation and distress, the monarch of Ava was compelled, in 1826, to sue for peace, by the near approach of the army to his capital.¹

Political
system of
India.

The wars and commotions of India have thus at length come to a close, and Great Britain remains the sole ruler of that vast empire. The native princes, rajahs, and petty feudatories of the country, hold their several dignities and stations in the great political system of which they form a part, under the guarantee of her sovereign authority. The nature of the subsidiary alliances of the British with the Indian states has been already described, namely, the furnishing a force, which is stationed in the dependent state for its protection, and the latter a territory equivalent to its maintenance, and further submitting, in its foreign relations and differences with other states, to the arbitration of the British government, though free from all control in its internal concerns. The powers with whom subsidiary alliances have been formed are the nizam or subahdar of the Deccan; the nabob of Oude; the Guicowar, whose dominions are in the province of Gujerat; Holkar, who has been deprived of all his dominions south of the Nerbuddah; the rajah of Nagpoor, reduced, since 1817, to insignificance; the rajahs of Cutch, of Mysore, of Travancore, and of Cochin. The protected states are so far reduced to dependence that they agree to maintain no correspondence with foreign powers of a political tendency without the privilege or consent of the British government, and not to go to war, but to submit all their differences with other states to the arbitration of the British. They are independent in their internal concerns, and have not, like the others, a British force stationed within their territories. They are bound to furnish a contingent of troops when required, which in the field act in subordination to the British commanders. These states are, 1st, in the north-west, Siccim and the Sikh and Hill states, on the left bank of the Sutledge: 2^d, Rajpoot states; Bicanere, Jesselmere, Jeepoor, Joudpoor, Odeypoor, Kotah, Boondi, Serowey, Kishengurh, Dowleah and Pertaubgurh, Doorapoor, Bansawarra: 3^d, Jaut and other states on the right bank of the Jumna; Bhurtpore, Ulwar or Macherry, Kerowlee: 4th, Boondelah states; Sumpthur, Jhansi, Jaloun, Oorcha or Tehree, Dutteah, Rewah: 5th, States in Malwah; Bopaul, Dhar, Dewas, Rutlaum, Silana, Nursinghur, Amjherra, &c.: 6th, States in Gujerat; Pahlunpore, Rahdunpore, Rajpeepla, Loonawara, Soonth, the states in the Myhee Caunta, the Kattywar states: 7th, States on the Malabar coast (chiefly Mahratta); Sattarah, Sawunt Warree, Colapore, Collabba: 8th, Burmese frontier; Cachar, Jyntia. States not under British protection; Scindia, the rajah of Dholapore, Barree and Rajakera (formerly rana of Gohud), Runjeet Singh of Lahore, the ameers of Scind, and the rajah of Nepaul. Scindia, though not formally a protected or dependent state, is substantially under the control of the British, who now settle with many of his tributaries, collecting his revenue, and paying it over to him; so that they have secured their ascendancy in all the western and southern districts of his dominions, which, in the event of a war, they might employ against him for his destruction. Of this, according to Sir John Malcolm, he is so sensible, that he has abandoned all idea of ever again opposing the British government.

Causes of
the Bri-
tish suc-
cess.

The rise of the British power, from small beginnings into so vast an empire, is one of those surprising revolutions

in human affairs which gives to history the air of a romance. The managers of a trading company in London are now the lords of a kingdom ten times the size of England, and containing a hundred millions of inhabitants; they engage in war and make peace; they rule over kings and princes, dethroning some and setting up others in their stead; and in their counting-house in Leadenhall Street they regulate, not the chances of profit and loss, but the concerns of a vast empire. Yet the causes of this great revolution are simple and obvious. The extensive dominion acquired by the British in India is the consequence of long-continued military success; it is the fruit of victory in many a well-fought field, the triumph of European discipline and science over the rude valour of the hasty levies and imperfectly trained militia of the East. In the course of this long contest the British had frequently to contend with few against many, and their empire sometimes tottered on the verge of ruin, as in the invasion of the Carnatic by Hyder Ali. But the steadiness of the European infantry still repelled the irregular charges of the Mahratta horse, and triumphed in the end; and to this powerful instrument, namely, a well-disciplined military force, wielded by skilful hands, the British are indebted for the conquest of Hindustan. The extension of their empire in India was always discountenanced by the Directors at home, who issued their repeated and peremptory commands on the subject. Yet it might have been easily foreseen, that, the foundation once laid, the superstructure would naturally arise; that having made the first step, the British would not readily stop short in their course. The frailty of man has never been able to resist the allurements of ambition; the dazzling prize of extensive dominion has in all ages been pursued through the paths of blood; and it was scarcely to be imagined that the Company's servants in India would resist its temptations, more especially as there were many circumstances which gave a plausible colour to their ambitious views. The native powers, alarmed by the territorial acquisitions of the British, naturally combined against them as the common enemies of Indian independence. The British, on the other hand, convinced of their strength, and of the hatred and jealousy which they had excited throughout India, and easily yielding to the least surmise of hostile coalitions, often took up arms to avert distant and doubtful dangers; and victory being still the result of each new struggle, they assured their safety by the ruin of their enemies, and by the extension of their power. Thus the hostile designs of Tippoo rested upon mere suspicion, and he was overthrown when he was no longer formidable, and when he was thought to be an easy prey; and thus have all the independent states of Hindustan been successively crushed by their great rival, and war only ceased when no enemy remained to be conquered. Peace now reigns throughout the wide precincts of Hindustan,—of itself an unspeakable blessing, especially in India, so long the scene of ruthless war, massacres, and devastation; and this is no doubt the consequence of British ascendancy. Happy, if, along with this blessing, we diffuse among the ignorant, superstitious natives, the arts, the knowledge, the improvements, and the enlightened morality, of Europe.

It will now be proper to give a brief account of the domestic policy of the Company as sovereigns of India, especially in those important departments in the civil administration of every country, namely, the revenue, the judicial establishments, and the police.

Under the Mogul government, the public revenue was chiefly derived from a general land-tax, and the regular payment of this tax was the tenure by which property

Internal
policy of
the Bri-
tish.

Land-tax
under the
Mogul
empire.

¹ For a full account of the operations of this war, see the article *Ava*.

Hindustan. was held throughout the empire. The lands were possessed by different descriptions of owners or occupiers, under the titles chiefly of zemindars or polygars, the military chieftains of the Carnatic, talookdars, ryots, maliks, meerassadars, nair mulguenies, bhoomias, &c.¹ When Hindustan was brought under the sway of the British, they were necessarily ignorant of the manners and usages of the people, and of the peculiar structure of a Hindu community; and hence the nature of the tenures under which land was held, and of the different descriptions of land owners and occupiers, has been a standing subject of controversy amongst the Company's servants, some insisting that under the Mogul despotism, as over all the East, the sovereign is the sole proprietor of the lands within his dominions; that no private right of property has ever been recognised in any of the great monarchies of Asia; and that all grants of land are resumable at the pleasure of the prince. According to this theory, the zemindar is considered merely as a species of steward or factor, appointed by the government, to collect and superintend the land revenues; and after reserving a suitable portion for his own maintenance, to remit the surplus to the imperial treasury. The rights of the talookdars, an inferior description of holders, and the ryots, and other occupiers of land, were still more imperfectly understood by the English when they acquired the dominion of Bengal; but, under the idea of the sovereign's indefeasible right in the soil, they naturally considered them as tenants at will, to be dealt with like other tenants in the same situation, at the pleasure of the proprietor. This hypothesis of the sovereign's proprietary right was eagerly adopted by the English, and has been boldly followed up in practice. It has, as might have been expected, led to extensive confiscations of land, to great changes in the state of property, and to much distress and confusion, as will be afterwards narrated; and it will be proper, therefore, briefly to inquire how far this claim accords with any legal right, and still more with any principle of enlightened policy.

Sovereign's proprietary right considered. In a government purely arbitrary, where every man holds life and liberty at the mercy of the sovereign, it is extremely difficult to distinguish between the exercise of legal rights and the outrages of abused power. That the despotic rulers of the East might take possession of the land, or of any other description of property belonging to their subjects, and that this was their practice, can hardly be questioned. But might does not constitute right; nor by such acts of tyranny can they become lords of the soil in any legal sense, any more than of the lives and liberties of their subjects, because they often massacre and torture them at their pleasure. The law of conquest, which is the law of the strongest, gave to the Mahomedans possession of India, which they desolated with fire and sword, and took possession of the lands and properties of the inhabitants, who, according to their approved practice, might have been all put to the sword, as the redemption price of their blood. This was the only title which the Mogul emperor could have had to the lands within his dominions, namely, that he had seized upon them by force; and in countries long subject to Mahomedan rule, or to the Mahrattas and other domestic tyrants, all the ancient rights of the proprietors

have accordingly been obliterated. But these acts of Hindustan. tyranny and spoliation can never be construed into legal precedents, nor can they ever confer any title; and it seems a gross abuse of words to call that a right which is merely a deed of violence.

The monarch or the emperor was no doubt styled, in the true strain of oriental flattery, the sole proprietor of the soil, and the lord of the universe; and this he may have been originally, in the same manner as the monarchs of Europe were under the feudal system. According to the feudal law, they were the supreme lords of all the conquered territories, which they granted as fiefs to their vassals, on condition of military service; and from the monarch a subordinate chain of vassalage extended downward to the lowest tenant. These lands were at first granted for a year, but afterwards for life; at length they became hereditary, and descended to the son, or to more distant relations; and thus they finally became a permanent property. But the form of the original tenure is still maintained. They still hold of the sovereign, to whom, at the death of each heir, a formal surrender is made of the property, and a new charter is granted as a matter of course. But this right of the crown, by which in former times the property was actually resumed at the death of the proprietor, has now become a mere legal fiction, an evidence only of the original tenure by which the property was held; and we may easily imagine the disorder and injustice that would be introduced into any European country by a conqueror, who, guided by feudal forms, in opposition to immemorial usage and fixed law, was to resume all property holding of the crown, or of any other superior. In like manner, in Hindustan, though the sovereign was styled the proprietor of all the lands within his dominions, and in legal theory might be so, it would be rash to infer from this the actual extinction of all proprietary rights. Under the Mogul government a heavy tax was, no doubt, laid on the land, which was the main source of the public revenue. But individual rights of property might nevertheless exist; and their non-existence has certainly never been satisfactorily proved; so far from it, that the advocates of the sovereign proprietary right seem to have nothing to oppose to immemorial usage, and to the principles of justice, but legal forms and the acts of despotic power.²

But the abstract question of right here merges into the higher question of policy. It would be the interest of a sovereign, even if he were proprietor of the soil, to commute his rights for a moderate and fixed assessment, which in the end would bring in the greatest amount of revenue. A land-tax which leaves a bare maintenance to the cultivator discourages agriculture, population, and the growth of capital; it is indeed an interdict on all improvement. Its produce cannot be increased except by the most ruinous extortions, though it will necessarily decrease with the desolation of the land, which it tends to promote. No country can be improved and cultivated where the rights of property are loaded by a public tax. Would the wastes of America, we may ask, be so quickly converted into fruitful fields, if the government were to come in for the largest share of the produce, if the owner were placed under the strict surveillance of the excise, and obliged to account for every

¹ See Colonel Todd *On the Feudal System in Rajast'han*, vol. i. chap. i. p. 167. See also *Fifth Report*, p. 822-23, Extracts from Mr Thackeray's Report, dated 4th August 1807.

² The masterly reports of the Company's collectors in Southern India all concur in stating the hereditary rights of individuals in the land to be clear and unquestioned from the most remote ages. "In tracing their (the Hindus') past situation," says one of the collectors, "it is not to be discovered, that during the revolutions of many ages, from the reign of their first princes, until the final downfall of the Hindu authority, any questions ever existed, in any stage of the Hindu history, as to the right of the people to the lands of the country, excepting villages or lands totally waste, and that had escheated to government. On the contrary, they appear to have been transmitted to them, from the most remote era, down to the present time, without interruption; these rights are supported by usages, which could never have prevailed, but for their universal acknowledgment; and, in the repositories of their history and their laws, we find the right of the people to property in lands repeatedly acknowledged and preserved." (Extract from Report of Collector of Southern Polygar Peshcush, 29th December 1800, *Fifth Report*, Appendix, p. 828.)

Hindustan particle of his crop. In Europe the church tithes have been justly complained of as a great obstruction to improvement. But a tax such as we have described, which, however it varied in its amount from a fourth, a third, or half the gross produce of the soil, generally left only a bare maintenance to the cultivators, is far more pernicious in its operation; and it is indeed owing to its pressure that so large a portion of *Hindustan* still remains a primitive wilderness. Mr L. Place, to whom was committed, in 1790, the settlement of the Jaghire, a tract of country in the Carnatic that had been ruined by the invasion of Hyder Ali, after mentioning the desolation of the country, and that the inhabitants would not cultivate any fields except under a secure tenure, adds, that "by granting them lands to them and their heirs for ever, so long as they continued in obedience to the *circar* (government), and paid all just dues, he was enabled to convert the most stubborn soil and thickest jungle into fertile villages."

Land titles among the Hindus. It was extremely natural for those who had succeeded to the rights of the sovereign to exaggerate the extent of those rights, and to believe in the convenient doctrine of his proprietary title to the land. But although many ancient rights were unquestionably trampled down and for ever lost in the violence of the Mahomedan conquest, yet recent investigations have discovered, amidst the ruins of Hindu institutions, many relics of ancient manners, and the clearest titles of individual proprietors to the possession of the soil. In carrying into effect the permanent settlement by Lord Cornwallis of the land revenues in Bengal, the collectors were embarrassed by the claims of the petty talookdars, who insisted on a hereditary right of property in the soil; and the maliks, who with vehemence urged the same claims, and affirmed that the zemindars and talookdars had no needs to show that could deprive them of their just rights. They claimed the land as their paternal inheritance, and refused to settle for the public revenue on any other terms than as proprietors. The collector was deeply impressed with the justice of their claims; and Mr Rickards, in his masterly work on Indian finance, affirms that the maliks were really proprietors, stripped of their rights by the usurpations and exactions of the zemindars and their aumils or collectors.¹ In the district of Dacca, the private rights of property were found to exist in their full force; even the unproductive jungle and waste around the town was claimed by individuals, "who," says the collector, "though they receive no profit from it, and are too indolent themselves to make it productive of any, will not

suffer others to bring it into a state of cultivation without some recompense; and so very tenacious are they of it, that even in the suburbs of the city, which for three or four miles is almost an impenetrable jungle, infested by wild ferocious animals, a man cutting down a single tree will be sued by the proprietor for damages."² A clearer idea cannot possibly be conveyed of the rights of property, and of the solid foundation on which they rest in Bengal, as in all other countries. The accurate researches of Colonel Todd, who drew his information not merely from written records and deeds, but from the more durable tablets of stone found amidst the ruins of the fallen pile, have laid open the ancient tenures and institutions of Northern India; and in his lively delineation of those ancient manners we recognise all the peculiar features of the feudal system. There were in Rajast'han or Rajpootana two classes of landholders, the one the Grasya-t'ha-cour or lord, the other the bhoomia;³ the first holding land by a grant from the prince on the condition of military service, "renewable," says Colonel Todd, "at every lapse, when all the ceremonies of resumption, the fine of relief, and the investiture, take place;"⁴ the other an allodial proprietor, who holds prescriptive possession, who succeeds to his inheritance without any fine, though he pays a small annual quit-rent, and may be called upon for military service in the district where he resides, which is chiefly composed of the rocks and wilds that afford a refuge from oppression, and where the bhoomias, being numerous, form a species of local militia.

In the southern countries of India, in Tanjore, Tinnevely, Canara, Malabar, &c. where the Mahomedan rule had only been temporary or partial, the rights of property were not extinguished; they were indeed encroached upon, and were, as Mr Rickards observes, "in progress of actual extinction, and approached nearer and nearer to this term in proportion to the duration of Mussulman tyranny." The tyranny and exactions of Hyder Ali and his son Tippoo had nearly extinguished all proprietary rights in Mysore and in Malabar; and most of the Hindu landholders were compelled to seek refuge in Travancore. "I was," says Mr Rickards, "personally acquainted with some who, from the same causes, deserted their estates, and retired for safety into Coimbatore."⁵ But those rights were not obliterated, and the investigations of the British functionaries, skilled in the native languages and manners, brought to light in these countries the ancient condition of property, and the clearest titles of individual proprietors.⁶ The notion of the sovereign's proprietary right to the whole

¹ See *Fifth Report*, p. 493, Copy of a Letter from the Collector of Shahabad to the Board of Revenue, dated 29th September 1789. Rickards, vol. i. chap. i. sect. iv. p. 368. *Mal*, says Rickards, is an Arabic word, denoting wealth, property, revenue, rent, particularly that arising from land; and *Malik* means master, lord, proprietor, owner of such rent.

² *Fifth Report*, Appendix, p. 495, Letter from the Chief of Dacca to the Board of Revenue, dated 23d July 1786. It was proposed that the government should clear away this jungle, and cultivate the land. But this "laudable plan," says Mr Day, chief of Dacca, cannot therefore be carried into effect, "without creating great dissatisfaction," as every seizure of private property necessarily does; yet he observes, that the "prejudice (*i. e.* the robbery) of a few individuals, should be no impediment to the adoption of a plan which has for its object the benefit of the community at large."

³ The term *bhoomia* is, according to Colonel Todd, a most expressive and comprehensive name, importing absolute identity with the soil; *bhoom* meaning land. (Todd, vol. i. p. 168.)

⁴ *Annals and Antiquities of Rajast'han*, by Lieutenant-Colonel James Todd, vol. i. p. 164.

⁵ Vol. i. p. 283.

⁶ See *Fifth Report of Select Committee*, p. 714. Report of Mr Place respecting the land tenures in the Jaghire; Report of Mr Hodgson on the revenues of Tinnevely, *Fifth Report*, p. 832; Report on Revenues of Dindigul, p. 978. Mr Place at first agreed to the favourite theory that the sovereign was lord of the soil, and that the occupants of land in India were mere tenants at will. But on further inquiry, he was convinced that the *meerassadars* were hereditary proprietors. Report of Collector of Tanjore and Trichinopoly, 8th September 1805: "Immemorial usage," he observes, "has established, both in Tanjore and Trichinopoly, that the occupants, whether distinguished by the names of *meerassadars* or *mahajanums*, have the right of selling, bestowing, devising, or bequeathing their lands in the manner which to them is most agreeable." "It is fortunate that, at the moment when we are consulting on the means of establishing the property and welfare of the numerous people of these provinces, we find the lands of the country in the hands of men who feel and understand the full rights and advantages of possession; who have enjoyed them, in a degree more or less secure, before the British name was known in India; and who, in consequence of them, have rendered populous and fertile the extensive provinces of Tanjore and Trichinopoly. The class of proprietors to whom I allude are not to be considered as the actual cultivators of the soil; the far greater mass of them till their lands by means of hired labourers, or by a class of people termed *pullers*, who are of the lowest, and who may be considered as the slaves of the soil. The landed property of these provinces is divided and subdivided in every possible degree. There are proprietors of 4000 acres, of 400 acres, of forty acres, and of one acre."

Hindustan, produce of the land was interwoven with the Mogul system of finance, and the East India Company had always acted on the same maxims. Accordingly, Mr Place and others, when they entered on the management of the Jaghire, Canara, Malabar, &c. were prepossessed with the same ideas, and gave the most liberal interpretation to the Company's proprietary rights, considering the occupants and cultivators of the land as mere tenants at will. But they were soon undeceived by glaring facts. They found that the possessors of the land had the right of selling, bestowing, devising, or bequeathing their lands, in whatever manner they might deem expedient; that the lands, whether they belonged to villages, and were cultivated in shares by their common labour, or to individuals, were their absolute property, of which they could only be deprived by an act of violence. This proprietary right was termed *meerass*, a Persian or Arabic term for land;¹ and the proprietor a *meerassadar*. "Whatever may have been the origin of these rights," says the Fifth Report (p. 105), "they are regarded by the people as hereditary rights," and were, according to the Hindus, far more ancient than the Moorish conquest. Estates were found to consist of from 4000 to one acre of land; and where they were large, or were divided amongst a numerous proprietary, they were tilled by *parakudis* or *pyacarais*, who were paid for their labour, and who possessed hereditary rights of occupancy as cultivators. Common labourers were also occasionally hired; and slaves are numerous all over the country, attached to the soil, and in a state of villenage, as were formerly the cultivators in Europe. In Canara, the same rights of property exist in the land; and the proprietors are known under the appellation of *nair mul guenies*, who, like the meerassadars, have tenants in perpetuity, or *shud mul guenies*; and tenants at will, or *chalie guenies*. Of these tillers it is observed in the Fifth Report of the Select Committee on the affairs of the East India Company, that "the lands in general appear to have constituted a clear private property, more ancient, and probably more perfect, than that of England. The tenure, as well as the transfer, of this property, by descent, sale, gift, and mortgage, is fortified by a series of regular deeds, equally varied and curious, and which bear a very strong resemblance in both parts of the country. The proprietary right is either vested in individuals, or in copartnerships of persons, each of whom possesses an unalienable interest in the estate, proportioned to the share of the property of which he has become possessed."

There is another class of landholders in Malabar, denominated *jelmkars*, or *jennmkars*, who possess allodial rights, acknowledging no superior, and who were exempt from the government-tax.² When Hyder conquered the country, his first act was to declare half the produce of the soil to belong to the sovereign; and it was in this manner that in Hindustan all private rights were trampled upon and gradually obliterated. But these exactions of tyranny are not to be confounded with the legal claims of the state. Mr Hodgson, in his report on the revenues of Coimbatore, justly observes, that whatever abuses took place under the Hindu or Mahomedan princes, "what was fair assessment,

and what was exaction, was well known to the party governing and those governed."³ From all this concurring evidence, it is clear that the sovereign's proprietary right in the soil was in Hindustan, as in Europe, more nominal than real; that prior to the Mahomedan conquest the land was divided amongst individual proprietors, and that the bhoomia of Rajpootana, the malik of Bengal, the meerassadar of Southern India, the nair mul guenies of Canara, and the jelmkars of Malabar, were all hereditary landholders, with legal rights, of which they could only be dispossessed by the violence of despotic power.

The Mahomedan conquest subverted most of the ancient rights and titles of the Hindu landholders, and introduced into Bengal the title of zemindar or landholder, from the Persian word *zemin*, land; respecting whose rights and duties so wide a difference of opinion has prevailed. Without entering further into this controversy, which, as respects the zemindar, is more a speculative than a practical question, it may be observed, that the zemindars had lived for centuries in great splendour on the produce of their lands, which had quietly descended under the existing tenure through successive generations; that they had the power to sell, to alienate, or to mortgage; and that as long as they paid the annual tribute to government, they enjoyed secure possession of their lands. Under a despotic government arbitrary ejectments might no doubt occur; but these were rare, and they were universally regarded, both in law and in usage, as the illegal outrages of abused power. It is admitted on all hands that these rights belonged to the zemindars; and the only point that still remains in dispute, and it does not appear very material, seems to be, whether, according to the theory of the Mogul constitution, the receipt of the land-tax by the sovereign, or of his allotted share of the produce by the zemindar, entitled the one or the other to the character of proprietor of the land.

The zemindars, being bound to the state for the revenue, were necessarily invested with the power of collecting the land-tax from the subordinate landholders and tenants. They united, in this manner, legal authority with the possession of property, whilst, as judges and magistrates, they administered both civil and criminal justice, and were held responsible for all crimes committed within their respective boundaries. These powers they frequently abused, and oppressed the inferior landholders, the talookdars and the ryots, the hereditary cultivators, or, as others consider them, the proprietors of the land, by the most cruel exactions. It was to the principal landholders that government looked for the discharge of its demands, whilst the inferior occupants and tenants were bound each to his immediate superior for their several proportions of the stipulated tax.

There were various other tenures by which lands were held in Bengal, namely, the Jaghire, Altumgha, Muddud Mash Ayma, and others. The first were grants of land on the condition of military service, or for the support of garrisons or any other public establishment, especially of a military nature. This would appear also to have been the conditions of the zemindary tenure, as Mr Rickards states that the zemindars of Bengal are expressly mentioned in the

¹ This term of *meerass* was introduced by the Mohammedans. "Swastrium," says Mr Hodgson, "is the Sanscrit word, and is generally used by the Brahmins; and *cancatchy* by those Shudras (cultivating castes) who may not have adopted the general term *meerass*." (See *Fifth Report*, Appendix, p. 832, Extract from Hodgson's Report on the Revenues of Tinnevely, 24th September 1807.) Caniatchikedar is possessor or proprietor, and fully answers to jelmkar. (See p. 833, *Fifth Report*, Mr Hodgson on the Revenues of Dindigul, 28th March 1808.)

² *Jelmkar* or *jennmkar* means an allodial proprietor; the term *jennm* meaning properly allodial right.

³ *Fifth Report*, p. 834. "Neither the Hindu nor Mussulman government appear (supposing their right in the soil as proprietors to be indisputable, and proprietary right to be a right to demand what the proprietor pleases for his land) ever to have exercised the right. What was fair assessment, and what was exaction, was well known to the party governing and those governed. It is true, where, as under Tippoo Sultaun's reign, exaction had no limit, landed property could have no value; but where fraud could not counteract oppression, a hope of change for the better, or inability to resist, produced submission, till the load became too heavy to bear, and emigration the only source of relief."

Hindustan. Ayeen Akberry as furnishing their several contingents of cavalry, infantry, and artillery. The Altumgha grant, according to the terms of it, was in perpetuity. The other grants were for the support of learned men, or religious establishments. Many of the public functionaries of the Company denied the validity of these grants; they estimated the average loss, as it was called, as if there could be any loss where there never was any right, on these grants in Bengal and the ceded provinces at two and a half millions sterling, and contended that they were resumable, and were often actually resumed, at the pleasure of the prince. Colonel Todd, however, mentions, that in Rajpootana this right of resumption had fallen into disuse. "The right to resume," he observes, "may be presumed to exist; while the non-practice of it, the formalities of renewal being gone through, may be said to render the right a dead letter;" and, quoting a passage relative to the fiefs in Europe, that they were first moveable or resumable at pleasure, then perpetual or for life, and finally hereditary, he adds, "this is the precise gradation of fiefs in Mewar, a division of Rajpootana. There is reason to believe that these grants were in a progress to permanency all over India." But all permanent property in land was discountenanced by the policy of the British in India, who were perpetually picking holes in the tenures by which it was held, even where the deed of grant expresses in the plainest terms that it is perpetual, "from generation to generation."

Division
of the
country
into vil-
lages.

The country of Hindustan is divided into villages or districts, each comprising some hundreds or thousands of acres of arable and waste land. Every village is a separate community or township, and has its own establishment of public officers and tradesmen. These consisted of the *potail*, or head inhabitant, whose business it was to superintend the affairs of the village, to settle disputes amongst the inhabitants, to attend to the police, and to the collection of the public tax; the *curnum*, to whom it belonged to keep an account of the cultivation and produce of the land, to register the proprietors of the village, and to attest all deeds of sale, transfer, or assignment; the *boundary-man*, who preserves the limits of the village, or gives evidence of them in case of dispute; the priest, the school-master, the astrologer; the smith, the carpenter, the potter, the washerman, the barber, the cowkeeper, the doctor, the dancing-girl, the musician, the poet, who were each rewarded for their labours out of the produce of the village lands. The amount of their shares on the gross produce is estimated at five and a half per cent. The collectors were allowed ten per cent., and the remaining proportion of the crop was divided between the sovereign and the cultivator, in the proportion of ten elevenths to the former, and one eleventh to the latter. "Under this simple form of municipal government," says the Fifth Report, "the inhabitants of the country have lived from time immemorial. The boundaries of the villages have been but seldom alter-

Hindustan. ed; and though the villages themselves have been sometimes injured, and even desolated, by war, famine, and disease, the same name, the same limits, the same interests, and even the same families, have continued for ages. The inhabitants give themselves no trouble about the breaking up and division of kingdoms; while the village remains entire, they care not to what power it is transferred, or to what sovereign it devolves; its internal economy remains unchanged; the potail is still the head inhabitant, and still acts as the petty judge and magistrate, and collector or renter of the village." So deeply attached are the Hindus to their native villages and local manners, that, however they may be scattered by the desolation of war, their affections still centre in one common and cherished spot; insomuch that, in 1817, as is mentioned by Sir John Malcolm, and as has already been noticed, when peace was re-established in Central India, by the expulsion of the Pindarees and other freebooters, who laid waste the country, the inhabitants and officers of the villages re-assembled from every quarter, and the resurrection of these communities into life and action seemed to have been the work of an instant.

The land-tax of the village is collected by the potail, assisted by a train of petty officers or under collectors, the putwarries, the peons, the pykes, and others, whose salaries form a deduction from the gross rent. The potail pays his collections to the zemindar, from whom they were received, under the Mogul government, by a higher officer, and finally remitted to the imperial treasury. The accounts of the *curnum*, or the *canongoe*, were also transmitted through various gradations of accountants, who superintended and checked the collection and receipt of the public revenue. In the year 1573, during the reign of Akbar, when the Mahomedans had completed the conquest of Hindustan, Rajah Torrel Mull, minister of finance to the emperor, from the accounts furnished by the canongoes and collectors of the revenue paid by the ryots, formed a general rent-roll for all the country, as well as a scheme of division, fixing the separate proportions of districts and villages. The revenue thus settled, and usually called *tumar jumma* (rent), or standard assessment, is estimated by Sir John Shore at

Rupees.

10,693,152, at 2s. 3d. L.1,202,979

In 1722, being a period of 149 years, it was increased, under Jaffier Khan, by means of Abwabs, which are arbitrary taxes added to the original or standard assessment, to.....13,115,907

1,475,537

In 1728, by the additional taxes of Sujah Khan.....16,418,513

1,847,082

¹ Colonel Munro, a great authority on all Indian questions, in a paper of remarks on a decision of the chief justice of Madras respecting a jaghire estate that was resumed by the Company, argues, from the arbitrary practices of Indian princes in taking away these rights, that no such rights exist, although they are defined in the clearest terms. "The grant," he observes, "is in the usual form,—to be enjoyed by him and his descendants *for ever, from generation to generation.*" He is authorized to divide it among his descendants; and the local officers are required to consider the perwannah 'as a most positive peremptory mandate, and not to require a fresh sunnud every year.' The terms employed in such documents, 'for ever,' 'from generation to generation,' or, in Hindu grants, 'while the sun and moon endure,' are mere forms of expression, and are never supposed, either by the donor or the receiver, to convey the durability which they imply, or any beyond the will of the sovereign. The injunction with which they usually conclude—'Let them not require a fresh sunnud every year,' indicates plainly enough the opinion that such grants were not secure from revocation." (In Consultation, 15th March 1832.) The language here may be a "mere form of expression," yet it is impossible to frame in words a clearer legal title; and the doubt is, whether the subversion of such a title, however common amongst the despotic princes of Hindustan, ought not to be regarded as a tyrannical act rather than a legal precedent. No landed proprietor would, with such a title, surrender his estate, except to the power of the strongest. Custom may have rendered such acts familiar to the prostrate people of Hindustan; but if words like these are to be held as mere official forms, it is clear that no legal title to property can exist in India. Sir Thomas Munro mentions several examples of land held under common jaghire grants descending through several generations. He still insists, however, that, by the invariable custom of the country, they are resumable at the pleasure of the prince, though it seems extremely doubtful how far the practice of a despotic government in resuming lands can be received as a precedent against such a clear legal title.

Hindustan.

Rupees.

In 1755, by Ali-verdy Khan, to.....	18,644,067	L.2,097,550
In 1762-3, by Cossim Ali.....	25,624,223	2,882,724
In 1763-4.....	17,704,766	1,991,785

The arbitrary taxes termed Abwabs, added to the original standard assessment, consisted of duties on the transit of goods through the different chokies or toll-bars of the country, of taxes on cattle and stock of every description; of a capitation tax; of a tax on shops, manufactures, or stock in trade; and of fines and other arbitrary exactions; and, in proportion to the demands made on the zemindar, he was empowered to augment the contribution of his tenants. The standard revenue of Torrel Mull, amounting to L.1,202,979, appears to have been all that the country could bear; for, inconsiderable as was the augmented revenue of Jaffier Khan, it was only obtained by the most cruel tortures inflicted on the zemindars, many of whom he confined in pits filled with ordure, which he termed in derision Bykaut, or Hindu Paradise. In the reign of Meer Cossim, who was set up by the English, to whom he promised large sums as the price of his elevation, these oppressions were carried to a still greater height. The policy was to ascertain, by exact money, the produce of the land; and the whole surplus, after allowing a bare maintenance to the cultivator, was swept into the treasury.

English invested with the sovereignty of Bengal.

Although the ascendancy of the English had for some years been thoroughly established in Bengal, and although they were formally invested in 1765 with the sovereignty of the country, its affairs were still administered in the name of the native prince, and according to the forms and policy of the ancient constitution. Justice was still dispensed by the native courts, and by the nabob's officers; the revenues still flowed through the same channels into the public exchequer; and all transactions with foreign powers were carried on under the same authority as formerly. But such was the increasing power of the English, that the government, as far as regarded the protection of the people, was dissolved. Neither the nabob nor his officers dared to offer any opposition to their sovereign will; and the tribunals of justice, so far from being a refuge to the oppressed, became subservient to the rapacity of the gomastahs, or Indian agents, employed by the Company's servants, and were converted by them into most efficacious instruments for oppressing and plundering the people.

The directors had been long dissatisfied with the proceedings of their servants, and with the produce of the land revenues, which had fallen far short of their expectations, and they now resolved to put an end to the double administration of the nabob and the Company; and, dispensing with the empty name of the former, to take upon themselves, ostensibly as well as really, the entire care and management of the land revenues. The dewanny of Bengal, Bahar, and Orissa, or the office of collector of the public revenues, which in the East implies the right of sovereignty, was conferred in perpetuity on the East India Company by a grant from the Mogul Shah Aulum, dated the 12th of August 1765. The assessment imposed on the country by Cossim Ali is stated by Sir John Shore to have been mere "pillage and rack-rent;" and it was an assessment on paper, as, out of the sum of L.2,882,724, there remained a balance undischarged of L.1,987,054, notwithstanding the cruelty with which the collection had been enforced. It was found necessary to reduce the assessment, in 1763-64, to L.1,991,785, out of which the sum realised was only L.857,070.¹ In 1765-66,

the first year of the Company's administration, the assessment was 16,029,011 rupees, equal to L.1,803,263, of which 14,704,875 rupees (equal to L.1,803,263) were actually collected. In 1765 the assessment imposed amounted to L.1,692,237, and in 1766 and 1767 it amounted to L.1,713,677, from which deductions were afterwards made, as it was found impossible to collect it. Yet the sum actually realised was greater than ever was extorted from the country by all the cruelties of Jaffier Khan. But the methods by which it was collected were most ruinous. The landholders, failing almost universally in their engagements, were left to the mercy of the revenue-officers, by whom they were grievously oppressed. In many parts, the villages were deserted by the cultivators, and the land was left desolate. All these evils were still farther aggravated by a grievous famine which prevailed in Bengal in the year 1770, by which it is computed that about one third of the inhabitants perished. But, in the midst of all this misery, the revenue was still violently kept up to its former standard. The deficiencies occasioned by the famine were re-assessed on those who survived this calamity; and so strictly were they levied, that the land revenue for that year exhibited an increase above that of the year preceding. The ruinous effects of this heavy exaction are stated at length in the different letters from the governor-general to the directors. In a letter, dated the 3d of November 1772, he observes, "It was naturally to be expected that the diminution of the revenue should have kept an equal pace with the other consequences of so great a calamity; that it did not, was owing to its being violently kept up to its former standard." He then describes the method by which this was accomplished, which was by "an assessment upon the actual inhabitants of every inferior division of the lands, to make up for the loss sustained in the rents of their neighbours, who are either dead or have fled the country." "The tax," he continues, "not being levied by any fixed rate or standard, fell heaviest on the wretched survivors of those villages which had suffered the greatest depopulation, and were of course the most entitled to the lenity of government. It had also this additional evil attending it, in common with every other variation from the regular practice, that it afforded an opportunity to the farmers, or shiedars, to levy other contributions off the people under colour of it, and even to increase this to whatever magnitude they pleased, since they were in course the judges of the loss sustained, and of the proportion which the inhabitants were to pay to replace it." To the same effect, Mr Middleton, one of the superintendents of the public revenue, observes, "When a very considerable portion, supposed even a third of the whole inhabitants, had perished, the remaining two thirds were obliged to pay for the lands now left without cultivators. The country has languished ever since, and the evil continues enhancing every day. The first remedy, without the adoption of which all other measures will be fruitless, is an universal remission of some considerable portion of the revenue throughout the provinces. Such remission should have been made immediately on the famine. Its not taking place then has made it more and more necessary every day; and the longer it is delayed, the more ruinous the consequences must be to this country and its revenue."

To correct these evils, supervisors, chosen from the Company's servants, were in 1769 stationed in different parts of the country, to superintend the native officers in the collection of the revenue and in the administration of justice; and two councils were appointed over the super-

¹ See Sir John Shore's Minute, *Fifth Report*, p. 176.

Bindustan. visors, one at Moorshedabad and another at Patna. These supervisors were instructed to procure information respecting the amount of the land revenues, the manner of collecting them, the amount of the cesses or arbitrary taxes, the origin and progress of those modern exactions, and also to inquire concerning the regulations of commerce and the administration of justice. The reports made by these supervisors concurred with all the other evidence received as to the wretched and oppressed state of the natives. "The nazims," they observed, "exact-ed what they could from the zemindars and great farmers of the revenue, whom they left at liberty to plunder all below; reserving to themselves the prerogative of plun-dering them in their turn, when they were supposed to have enriched themselves with the spoils of the country."

It was now resolved to make a settlement of the land revenues for five years commencing from the year 1772. For this purpose, a committee of the board, consisting of the president and five members, named the "Committee of Circuit," was appointed, who were to make a journey through the country, and were empowered to receive proposals for a new lease of the lands, first from their ancient possessors, and if their offers were deemed unsatisfactory, they were to be let by public auction to the highest bidder. These persons proceeded in their circuit through the country, publicly advertising and letting in farm, for the highest rent that could be obtained, the estates of such as hesitated to contract for the assessment proposed. A great proportion of the landed property throughout Bengal was thus exposed to auction; and, in the general sale, the former owners and the great nobility of the country were outbidden by adventurers, to whom property was acceptable on any terms; and were generally dis-possessed of their lands, from the surplus produce of which a provision was assigned them by the indulgence of the revenue committee.

The supervisors who had been stationed in the different districts were invested with the necessary powers for the collection of the revenue, and were henceforth denomi-nated collectors. A native officer was to be joined with them under the title of duan, to confirm and to check ac-counts, and to assist in all those multifarious details which were intelligible only to a native. Various regulations were adopted to check the exertions of the collectors; but the governor and council express their regret that it was not in their power wholly to remedy this evil. Under the Mogul government, the duty of collecting the revenues and of administering justice was united, as formerly mentioned, in the person of the zemindars. The new scheme for the management of the revenues subverted this ancient order of things. The zemindar was superseded both as collec-tor and as judge, and his place was supplied by two courts, the one for civil, called the Dewanny Court, the other, call-ed the Fonjdarry Court, for criminal proceedings, estab-lished in each district. In the criminal court the new collector of taxes was to act as president, to be assisted by two Mahomedan officers, the cauzee and the mustee, and by two Mohlavis, as interpreters of the law. The civil court consisted, in like manner, of the collector as president, assisted by the duan and other officers of the native court. Two supreme courts were, at the same time, established at Calcutta, for the review of the infe-rior courts, the one for civil cases, being called Dewanny Sudder Adawlut, and the other the chief court of criminal justice, or Nizamut Sudder Adawlut. To one of these all capital cases were reported, and were ultimately referred to the governor and council, who, finding the labour too great, restored, in 1774, this branch of administration to the nominal nabob, and carried back the court to Moor-shedabad. It appeared that, for a long period before this, the administration of criminal justice was wholly at a

Hindustan. stand. In the new arrangements all disputes about pro-erty not exceeding ten rupees in value were referred to the head man of the district to which the parties be-longed.

In considering those regulations, the question naturally occurs, how these supervisors, who were now to act in the double capacity of collector and judge, became qualified for the discharge of such important functions. In all other countries, it is only by a previous course of labo-rious preparation that any one is qualified for the office of a judge; and to appoint an unqualified person would be reckoned both dangerous and absurd. But how much more dangerous and absurd was it to appoint uninstructed persons to act as judges in a foreign land, with whose lan-guage they are but imperfectly acquainted, and of whose laws, manners, and customs, they are thoroughly igno-rant? If, among a comparatively rude people, the mode of proceeding be loose and arbitrary; if there be no books of written law, or of precedents to govern judicial deci-sions, which must consequently depend on the imperfect lights and analogies afforded by manners, religion, or cus-toms, the incapacity of a foreigner for the discharge of such nice duties becomes even more glaring. By dispos-ing of the administration of justice in this manner, it was clear that the judicial duties would either be neglected, or that they would still be performed as before, and with no increased chance of amendment by native officers. This new arrangement was, therefore, like many others, a useless innovation on the established practice of the coun-try. There is another weighty objection to the union in one person of the duties of collector and judge, namely, that it was in the collection of the duties that the gross-est oppression had been committed; the powers of the collectors being frequently perverted to the most iniqui-tous ends. Under this new project, those who sought red-ress from the courts of justice met with their oppressor in the capacity of judge. He judged in his own case, and of complaints brought against his own conduct. Justice was in this manner an empty name, unless it was supposed that the judge would pronounce himself an oppressor.

Under the five years' lease on which the land revenues had been farmed in 1772, the country was grievously overtaxed. The revenues fell into a heavy arrear the very first year, and the lands were let on a progressive rent. To collect the outstanding balances, and to force up the revenue to its standard, a host of extortioners was, under the name of amins, or collectors, let loose upon the afflicted country. But the rents contracted for by the farmers of the revenue were greater than they could pay, and, notwithstanding all their efforts, the arrears continu-ed to increase. On the five years' lease, they amount-ed to a sum equal in value to L.1,454,277, which was judged to be wholly irrecoverable; while, during the same period, the sums remitted, even under the rigorous management of public farmers, amounted to L.1,336,451. Nor was this the only evil arising from the mis-adminis-tration of the Company's servants. The zemindars, who are admitted on all hands, even by those who advocate the sovereign's right to the possession of the soil, to have lived in splendour on their hereditary possessions; in all cases to have possessed the powers of magistracy within their district, and, where the territory was large, to have exercised a species of sovereignty; were either despoiled of their estates, or, where they were induced, by a heredi-tary attachment to their possessions, to engage for the rent proposed, they were overwhelmed with taxes which they could not pay, and were thus involved in poverty and ruin. Where the zemindar was himself the farmer of the revenue, he exercised the same extortion on his inferiors which was applied to himself; where a money-jobber, having no interest whatever in the property of the ten-

Hindustan. ants, was the farmer, there was no limit to his extortion and cruelty.

The defects in this system for the administration of the land revenues soon began to disclose themselves; and the rulers of India, whose government was one continued innovation, immediately resolved to make another considerable change in the state machinery which they had just set in motion. They abolished the superintendence of the collectors; and the country, with the exception of Chittagong and Tipperah, being formed into six grand divisions, viz. Calcutta, Burdwan, Moorshedabad, Dinazepore, Dacca, and Patna, a council was appointed for each of the last five, consisting of a chief and four senior servants, to whom were transferred the powers and duties of the collectors. They were to preside in the courts of justice, and to superintend the collections; and, in subordinate districts, they delegated their powers to naibs or aumils, who were natives, and who were appointed, like their superiors, to collect and to judge in all cases under the value of 1000 rupees. The empty privilege of appeal was, as formerly, reserved to the unsuccessful suitor in the provincial courts; and, to superintend the whole collections of the country, a grand revenue-office was established at the presidency. The district of Calcutta was placed under the peculiar superintendence of a committee of revenue, consisting of two members of the council and three inferior servants. These regulations, which were declared to be temporary, and only preparatory to something more permanent, failed as usual in all their important objects. The defective administration of justice amongst the natives was admitted and complained of by all parties, and the peace of the country was in consequence disturbed by the general prevalence of robbery and other enormous crimes. The truth is, that the new arrangements had subverted the ancient institutions and local manners of the country, and had thus left a void in its internal economy which the government was in vain endeavouring to fill up.

The lease of the lands expired in 1777; and, after various suggestions and consultations, it was resolved that the rent should be regulated by the average collections of the three preceding years, and that the lands should be let, not by auction, but by an agreement with their ancient possessors in preference to other competitors. The liberal views of Mr Francis, who proposed that, in lieu of the monopoly of salt and opium, a moderate duty should be imposed on those articles, and that a long series of oppression should thus be terminated, by giving freedom to trade, were rejected by the governor-general. In pursuance of the plan proposed, the lands were let from year to year until the necessary arrangements could be completed for the system which was now to be adopted of a permanent land-tax.

The attention of the British parliament had frequently been directed to the state of our Indian possessions, and to the transactions of the resident government; and, in 1784, a new system, of which we have already given an account, was established in Britain for the control of the local administration, under which Lord Cornwallis, who was chosen governor-general, was specially directed by the act of parliament, as well as by instructions from the directors and the board of control, "to inquire into the alleged grievances of the landholders, and, if founded in truth, to afford them redress; and to establish permanent rules for the settlement and collection of the land revenue, and for the administration of justice, founded on the ancient laws and local usages of the country."

Lord Cornwallis, on his arrival in India, did not deem matters fully ripe for the execution of the proposed plan, namely, the permanent settlement of the land revenue. On this important subject he found that the most intelligent of the Company's servants differed widely in opinion. Neither the nature of the land tenure, nor the rights of

the different orders of people who shared amongst them the produce of the soil, were well understood. All that was distinctly known was the amount of the revenue; but whether it was too high or too low was still a disputed point amongst the English in India, although the country was visibly declining under the weight of assessment. In such diversity of opinion, the governor-general, anxious to proceed with caution, delayed for a little the plan of a permanent settlement. He let the lands, in the mean time, from year to year, through the agency of the district collectors; and information on which to found a more durable arrangement was diligently sought from every source.

In 1799, Lord Cornwallis had resolved on the permanent settlement of the land revenues. This he conceived to be essential to the relief of the country, the condition of which he described to be wretched in the extreme. "I am sorry," he observes, "to be obliged to say, that agriculture and internal commerce have for many years been gradually declining; and that at present, excepting the class of shroffs and banyans (bankers and merchants), who reside almost entirely in towns, the inhabitants of these provinces are advancing hastily to a general state of poverty and wretchedness. In this description I must even include every zemindar in the Company's territories, which, though it may have been partly occasioned by their own indolence and extravagance, I am afraid must also be in a great measure attributed to the effects of our former system of management." "I may safely assert," adds he, "that one third of the Company's territory in Hindustan is now a jungle, inhabited only by wild beasts." In pursuance of his plan, Lord Cornwallis entered into a permanent settlement of the land revenues for ten years, which was afterwards declared unalterable; and the zemindars of Bengal, Bahar, and Orissa, were formally constituted legal and perpetual proprietors of their respective estates, on the payment of a fixed rent to the state. The ten years, or, as it is called, the *decennial settlement*, was completed in every district in 1793.

In regard to this measure, there cannot be a doubt, that in abolishing a land-tax, increasing at the discretion of the government with the produce of the land, Lord Cornwallis acted upon a just principle. But the advantage of a permanent tax depends on its amount. If it be a moderate tax, its permanency is an advantage; but not so if, as in this case, it was exorbitant, higher than the land could bear, and inconsistent with the progress of cultivation. The legislators of India had not yet acquired the necessary knowledge of the country for such a measure. They had no data on which they could, with any certainty, adjust the tax to the capacity of the soil; and, after long discussions, it was at length fixed at the average amount of the collections for the last three years. In the division of the produce, accordingly, two fifths were, as before, allotted to the ryots, after deducting the expense of collections; of the remaining three fifths, constituting the rent of the estate, ten elevenths were taken as the government share, and one eleventh left to the zemindar. If we suppose, therefore, an estate of which the gross produce is L.1000 a year, the respective shares of the three claimants will be, L.400 for the ryots, L.540 for the government, and the remaining L.60 for the zemindar. In scarcely any instance, however, were these proportions practically enforced. But the tax was exorbitant. During the three preceding years, the average collections of which had furnished the standard of the assessment, it had been a general complaint that the country was overtaxed; and to this cause was ascribed its misery and decline. From this high standard of taxation no systematical reduction has ever been made. Arrears, which had been long accumulating, and which could not be recovered, had indeed been remitted; but every method of extortion had been practised, in order to realize as large a revenue as

Hindustan possible; and the country was now charged with a permanent assessment, founded on the actual revenue of those years, which was exorbitant, and greater than the land could bear; and this radical defect, even if there had been no other, would have ensured the failure of the plan. The zemindar, who was bound, in the first instance, for the public tax, depended, for the means of discharging it, on the produce of his rents; and the state, by imposing an immoderate tax on him, laid him under the necessity of plundering all below him.

There was another defect in the decennial settlement, that it provided no security for the under-tenants and ryots in the hereditary privileges which they claimed in the soil. As they varied in different places, and depended on different rules, the subject appeared to involve details too intricate for European management; and the important task of settling with the ryots was, therefore, devolved upon the zemindars, with a mere general recommendation to be guided by the custom of the place, and to give the ryot a written copy of his lease. According to this plan, it was the great proprietors only who had any permanent interest in the lands, while the inferior proprietors and tenantry were at the mercy of the principal landholders, who might exact from them whatever they pleased. The under-tenants and cultivators, in this ill-defined state of their rights, had no interest whatever in the improvement of the soil, being well assured that they would in no case be left more than a bare maintenance; and this was one among the other errors of the settlement, that it was made entirely with the zemindars, who were notoriously ignorant, oppressive, and corrupt. Malikis and other inferior landholders were crushed, and the just titles of the talookdars and ryots were extinguished; they were placed in the power of the zemindars, on whom alone the government relied for the improvement of the country; though no country was ever yet improved by its great lords, who are generally inactive, wasteful, and improvident. The putwary or hereditary officer of the village was now made a servant of the zemindar; and the office of canongoe, the hereditary village accountant, was abolished, and his land resumed, that is, seized by the government. Though humanely intended, therefore, the plan was calculated to entail ruin upon the higher classes of landholders, by the tax which it imposed on them; while by necessitating them, and at the same time giving them the power, to oppress all below them, in order to satisfy the exorbitant demands of the state, it necessarily had the effect of extending this ruin downwards to the lowest tenant. Its effects have entirely corresponded to this view of its principle.

Consequences of the tax. It soon appeared, that, in order to realize the revenue, it would be necessary to sell the lands; and this evil once begun, continued to increase. The revenue was not punctually paid, and, for the recovery of outstanding balances, lands to a great amount were at stated times exposed to auction. In the year 1796-97, the lands advertised for sale bore a rent of 2,870,061 sicca rupees (L.332,927), and those actually sold yielded an annual rent of 1,418,756 rupees (L.164,576). In 1797-98, the quantity of lands sold bore a rent of 2,274,076 rupees (L.255,833), and it is observed in the Fifth Report, p. 56, that "among the defaulters were some of the oldest and most respectable families of the country;" "the dismemberment of whose estates," continues the Report, "at the end of each succeeding year, threatened them with poverty and ruin, and, in some instances, presented

Hindustan. difficulties to the revenue officers in their endeavours to preserve undiminished the amount of the public assessment." In order to check those evils, several alterations were made from time to time by Lord Cornwallis. But they appear to have been unavailing; and, in the year 1802, in a report from one of the collectors, we have the following melancholy picture of the state of the country:—"All the zemindars," it is observed, "with whom I ever had any communication, in this and in other districts, have but one sentiment respecting the rules at present in force for the collection of the public revenue. They all say that such a harsh and oppressive system was never before resorted to in this country; that the custom of imprisoning landholders for arrears of revenue was, in comparison, mild and indulgent to them; that though it was no doubt the intention of government to confer an important benefit on them, by abolishing this custom, it has been found by melancholy experience, that the system of sales and attachments, which has been substituted for it, has, in the course of a very few years, reduced most of the great zemindars in Bengal to distress and beggary, and produced a greater change in the landed property than has perhaps ever happened, in the same space of time, in any age or country, by the mere effect of internal regulations."¹ In another part of the same document, the collector, after commenting on a regulation then recently introduced, observes, "Before this period (1799), complaints of the inefficacy of the regulations were very general among the zemindars, or the proprietors of large estates; and it required little discernment to see that they had not the same powers over their tenants which government exercised over them. It was notorious that many of them had large arrears of rent due to them which they were utterly unable to recover, while government were selling their lands for arrears of assessment." The collector adds, "Farmers and intermediate tenants were, till lately, able to withhold their rents with impunity, and to set the authority of their landlords at defiance. Landholders had no direct control over them; they could not proceed against them, except through the courts of justice; and the ends of substantial justice were defeated, by delays and costs of suit." To the same purpose Sir Henry Strachey observes, "That the men of opulence are now all men of yesterday; that the greatest men formerly were the Mussulman rulers, whose places we have now taken, and the Hindu zemindars. These two classes are now ruined and destroyed."²

Waste lands re-assessed. It was the intention of Lord Cornwallis to include in the permanent settlement of the land-tax in Bengal, all the waste lands, which were fertile and extensive, and which, yielding, when improved, a valuable produce, would enable the zemindar to pay the exorbitant tax upon the cultivated parts. The Europeans at this time did not know the fertility and the vast extent of those lands; and when it was discovered that the zemindars were enriching themselves by the cultivation of their untaxed wastes, it seems, as Mr Rickards observes, to have excited a notion amongst the British that they had got too good a bargain; and an error of this nature, on the side of liberality, was so monstrous an anomaly in the Company's policy, as behoved to be corrected with all due speed. Accordingly, doubts were suggested respecting the right of the zemindars to these waste lands, though they all laid claim to them as part of their assessed estates, and though it does not appear how the mere fact of their non-cultivation should invalidate or in any degree affect the title to the land.³

¹ Fifth Report, printed in 1812, p. 60.

² See Answers to the Interrogatories of Government, dated 30th Jan. 1802.

³ Mr Hodgson, in his Report on the Revenues of Tinnevely, observes, "If the *meerasadars* (proprietors) should be unable or unwilling to procure *pyacarries* (cultivators) to cultivate that part of the *meerassee* (estate) which is waste, and the *circar* (government), or

Hindustan. Inquiries were from time to time made, and in 1815 commissioners were appointed, apparently with no other view than to find a flaw in the titles of the zemindars, and to resume or to seize upon these waste lands, the cultivation of which was so great a source of wealth. Thus it appears that it was no more safe to grow rich under the rule of the British in India, than under any of the native despotic states; and the too luxuriant prosperity of the thriving zemindars was accordingly pruned by the tax-gatherer's rapacious hand. It was suggested by one of those commissioners in 1817, whose inquiries, the further they were pursued, involved him in greater difficulties, that all the waste lands should, without more ado, be declared the property of government, leaving to the zemindar the tardy and uncertain remedy of proving his title to the satisfaction of those who were despoiling him of his property. The greatest difficulties were everywhere experienced in carrying this scheme of spoliation into effect. In Bahar and Benares the commissioner declared the unassessed lands to be everywhere claimed as a portion of the zemindary estate. It is clear that the permanent settlement of the land-tax in 1793 was intended by Lord Cornwallis as a full discharge of all the public dues. It was a solemn deed, by which all doubtful and conflicting claims were for ever set at rest; and to open up this settlement at the distance of twenty years, and to harass the landholders with new and undefined demands, was a breach of faith, a cruel mockery of private rights, calculated to inflict a deep wound on the prosperity of the country. Such vexatious inquiries, conducted by those who had an interest in the confiscation of the lands, terminated as might have been expected. Those which were exempted from taxation by the permanent settlement of 1793 were now resumed and assessed; and the zemindar had his remedy in a suit against the government before the British revenue courts, which generally gave judgment against him. It is mentioned in evidence before the Lords' Committee, that the proprietor of a great estate in the Sunderbunds, who had brought into cultivation an extensive waste, was called upon, notwithstanding the permanent settlement of his land-tax, to pay an additional tax on the produce of this land. He disputed the claim; but being cast in a suit before the revenue courts, he was subjected to a ryotwar settlement, and compelled to pay fifty times more than the original rent.¹ Thus the tax was not only exorbitant, but provision was made for continuing it at a rack-rent, so that there was no prospect of relief under any circumstances to the oppressed country; and thus we find extortion to be still the true feature of the Company's government. It is this grinding system of taxation, this continual desire for an improving revenue, the standard by which the zeal of the Company's servants is judged of, and promotion regulated, that defeats all the blessings that might otherwise flow from European rule; that spreads pauperism far and wide, and is the standing source of misery throughout the country.

The ruin of the zemindars was partly occasioned by another cause, namely, the want of any effectual method of enforcing their claims against the small tenants. The public officer was empowered to proceed against defaulters by a summary process, and to attach and sell, by public auction, the zemindar's land for the discharge of arrears; whilst against the under-tenants the zemindar had to seek redress by an ordinary suit at law, which was both tedious

and expensive. To heighten this evil, the courts of justice were overloaded with a long arrear of undecided causes, so that no decision could be expected before the lapse of years. There were in the district of Burdwan above thirty thousand undecided suits; and no decision could be expected within the ordinary duration of human life. The zemindar, in this manner, whilst he was compelled to pay, by the prompt and efficient process of government, was left to seek redress from his tenants through a labyrinth of endless litigation; and the knowledge of this impediment to justice gave great encouragement to the tenants to refuse payment of their rents. The ruin of the zemindar, therefore, was the inevitable consequence of this summary process to which he was exposed, while he could have no similar recourse on his tenants; and these regulations were universally complained of, and on the justest grounds. In an address from one of the collectors to the board of revenue, in behalf of the zemindar of Burdwan, who had in vain applied for redress to the civil courts, it is observed that he (the zemindar) begs leave to "submit to your consideration, whether or not it can be possible for him to discharge his engagements to government with that punctuality which the regulations require, unless he be armed with powers as prompt to enforce payment from his renters, as government had been pleased to authorize the use of in regard to its claims on him; and he seems to think it must have proceeded from an oversight, rather than from any just and avowed principle, that there should have been established two modes of judicial process under the same government; the one summary and efficient for the satisfaction of its own claims, the other tardy and uncertain in regard to the satisfaction of claims due to its subjects; more especially in a case like the present, where ability to discharge the one demand necessarily depends on the other demand being previously realized."

The system which impoverished the zemindars proved equally ruinous to the ryots. It was the practice of the zemindar to contract for a certain rent with a land farmer, who subdivided the land into smaller portions, and let it to a variety of inferior tenants. To this head farmer it appears that a written agreement was given, according to the regulations; but the under-tenants were left, without any security, to the mercy of their superiors. It is well known, and admitted by the servants of the Company, that the ryot, even when he receives written agreements from the zemindar, is liable to indirect oppressions which no law can remedy; and though, owing to the expense and delay in the administration of justice, he could retaliate on the zemindar, by refusing payment of his rents, this privilege could be of little advantage to him, whilst it tended still farther to widen the breach between the landlord and the tenant, and to add to the hatred, strife, and violent distraction of interests by which the community was now, as it were, torn in pieces. To remedy the grievances which the zemindars suffered from the evasion of payment by their tenants, it was enacted in 1799, that they might have recourse to the same summary process against defaulters, as was used by the government against themselves. They were empowered to seize the property of their tenants for arrears, previous to any legal judgment, or any proof of the justice of their claim. This regulation gave to the zemindars the power of unbounded oppression, against which the ryot had no redress, as he was effectually shut out of the courts of justice by the

the circar's representative, a zemindar or mootahdar, should assign the land to be cultivated to a stranger of his or their procuring, the meerasadar would consider himself proprietor of the land, claim his *sawmy bogum* (a deduction for himself of about 13½ per cent. on the gross produce), and not consider his title invalidated by his temporary inability." (See *Fifth Report*, p. 832.)

¹ See *Minutes of Evidence before Lords' Committee*, 26th February 1830, Evidence of Mr Mangles, p. 49.

Hindustan. enormous expenses of law proceedings.¹ It was undoubtedly just that the zemindar should have the same efficient process for enforcing payment as was used against himself; but such was the unhappy condition of India, under the unskilful management of strangers, that every plan of reform seemed only to increase the general disorder. Her rulers wanted intelligence for the delicate task of domestic legislation; their schemes were crude and inapplicable, nor could they ever mould the various and jarring interests of the Indian community into any consistent scheme of civil order; so that, though they were continually patching their imperfect work, it still bore the same incongruous character, and the cure of one evil was constantly followed by an irruption of other and worse evils from some other quarter.

The state of society which prevailed in Hindustan arose from the mixed operation of a peculiar system of laws, customs, manners, religion, and policy; and such an artificial structure required to be nicely and skilfully handled, instead of which it was lacerated in all its delicate parts by the rude hand of foreign interference. The English were ignorant even of the language of the people whom they had brought under their sway, and whom they now attempted to govern; and though they might know generally that the public revenues were derived from an impost on land, they were entirely inexperienced in the usages of the country, and in the financial details of the Mogul government. With what effect, therefore, could they interfere in such complicated details? how could they decide between the claims of justice and of fraud? how could they judge of cases connected with the peculiar usages of the country, and with all those minutiae of local manners with which no foreigners can ever become thoroughly acquainted? The Company's servants, involved in such a labyrinth of complex concerns, possessed no clue to guide them to any equitable issue. Supposing their views to have been honest, they wanted intelligence to give them effect; and although they could enforce submission to their decrees, the country, under their usurped and ill-directed authority, presented one vast scene of anarchy and oppression. The directors in Europe readily ascribed all these evils to the misconduct and rapacity of their servants, which they heavily censured; and, in their correspondence with India, they express the most just, humane, and enlightened sentiments, and a sincere desire to promote the happiness of their subjects. But if they had only said to their servants "lower the assessment," these three words would have been of more avail than volumes of fine sentiment. The truth is, that extortion has all along been the vice of the Company's government. The eastern maxim of the sovereign's proprietary right to the soil was too readily adopted into their European creed, and was the ground and the excuse of immoderate assessment. The new sovereigns of India could never relinquish the idea of profit, and the wealth of India was now expected to swell the balance-sheet. The land and labour of the country were to be laid under contribution for the benefit of the mercantile proprietors in Europe. The glory of a sovereign consists in the felicity of grateful millions, and this is the only true and legitimate end of all government. But the East India Company were intent on profit, on enriching themselves at the expense of their subjects; and the duty of the servants to their masters consisted in sending home a large investment. They were to possess themselves of as large a quantity as possible of the produce of the country, giving nothing in return, and to send it to Europe to be shared

amongst the proprietors; and it was, accordingly, the boast *Hindustan.* of successive administrations how well they had succeeded in this matter; not how happy they had made their subjects, but how much of their property they had taken from them and sent to Europe.

The institutions of Lord Cornwallis, for the administration of civil and criminal justice, appear to have been equally unsuccessful with his finance measures; and it soon appeared, as has already been stated, that the new courts of judicature had more business than they could manage, and such an arrear of undecided cases accumulated that the course of justice was nearly stopped. In this dilemma, the costs of suit were raised for the purpose of discouraging litigation; and this expedient being found ineffectual, they were raised a second time. To place justice out of the reach of the poorer and more numerous class, by laying a heavy tax on it, was indeed an easy and effectual method of discouraging litigation. It was, in fact, a denial of justice, a direct refusal to hear the complaints of the poor, who might, therefore, be harassed for ever after with impunity. Notwithstanding this discouragement, however, the evil went on increasing, and at last amounted to an almost total dissolution of civil order. As no decision was to be procured before the regularly-constituted tribunals, every man began to arm himself in his own quarrel, and the country thus became the scene of bloody affrays between armed individuals, unhappily left without any other resource for the decision of their differences. In some of those conflicts 4000 or 5000 persons were arrayed on each side, and many lives were lost. In a letter of the court of directors, dated October 1814, it is observed, "As to affrays respecting the possession and boundaries of lands and rents, this has been long a serious evil, and must, we conceive, have existed in a greater or less degree in every part of the country." "These affrays," continue the directors, "which often lead to homicides and woundings, have been very naturally ascribed by several of the judges to the difficulty of obtaining redress."² In the district of Tirhoot, where the public peace had been frequently disturbed by those private feuds, the judge for the division of Patna observes, that they chiefly "arose from the accumulated arrears of suits," and "that the parties finding a delay in obtaining redress, had resorted to force."³ Mr Melville, also a judge in the division of Dacca, expresses himself to the same purpose. "With respect to affrays," he observes, "attended with homicides and wounding, it is known that those disorders arose from attempts to retain by force possession of lands, or rents of lands, to which the different parties alleged separate claims." The same person afterwards states, that "in Chittagong, they (meaning these quarrels) had not only been frequent, but violent; that the police authority had been often resisted, and in one instance overpowered; that it would be wrong to disguise the length of time a claimant must wait, with the sacrifices he must make, before the decision of a civil court can be obtained."

We shall now briefly advert to the system of penal judicature and police established by Lord Cornwallis; the object, in this case, being to give security to the people by the suppression of crimes. With reference to this object, however, the scheme has notoriously failed. Since the year 1793, India has become a prey to disorders of every sort, and to the worst of crimes. The crime of robbery, accompanied with murder, rose to a most alarming height, and was prosecuted with a degree of union, perseverance, and cruelty, inconceivable to those who live in the civiliz-

Judicial system of Lord Cornwallis

Penal judicature and police.

¹ All the collectors invariably bear testimony to the oppressions of the zemindars after the passing of the regulation of 1799.

² See *Papers relating to the Police and Administration of Justice in Bengal, from 1810 to the present time.* Printed by order of the House of Commons, 1819, p. 21.

³ *Ibid.* p. 22.

Hindustan. ed communities of Europe. Robbery is a regular profession, which is handed down from father to son; and the decoits, or gang-robbers, are formed, as the title implies, into powerful confederacies, and make their irruptions on the peaceful country with a force which it is vain to resist. They are described by Mr Hastings as "a race of outlaws, who live from father to son in a state of warfare against society, plundering and burning villages, and murdering the inhabitants." In the year 1772, the robbers are mentioned by the committee of circuit, and stated to be "not like robbers in England, individuals driven to such courses by sudden want; they are robbers by profession, and even by birth; they are formed into regular communities, and their families subsist by the spoils which they bring home to them."

Increase of crimes.

All the reports of the judges employed in the administration of criminal justice concur in representing the deplorable prevalence of the atrocious crimes of gang-robbery and murder. Sir Henry Strachey, writing on this subject in 1802, observes, that the crime of decoity (that is, robbery by gangs) has increased greatly since the British administration of justice. Another judge, writing on the same subject in 1808, observes, "That decoity (gang-robbery) is very prevalent in Rajeshahye has been often stated. But if its vast extent were known; if the scenes of horror, the murders, the burnings, the excessive cruelties, which are continually perpetrated here, were properly represented to government, I am confident that some measures would be adopted to remedy the evil. Certainly there is not an individual belonging to the government who does not anxiously wish to save the people from robbery and massacre." (Mill, vol. iii. p. 311.) He afterwards adds, that such is the state of things which prevails all over Bengal; and as to his own particular district, he expresses his persuasion that no civilized country ever had so bad a police. To the same purpose Mr Dowdeswell, the secretary to the government in 1809, observes, in a report which he drew up on the general state of Bengal, "Were I to enumerate only a thousandth part of the atrocities of the decoits, and of the consequent sufferings of the people, and were I to soften that recital in every mode which language would permit, I should still despair of obtaining credit, solely on my own authority, for the accuracy of the narrative." "Robbery, rape, and even murder itself," continues he, "are not the worst figures in this horrid and disgusting picture. An expedient of common occurrence with the decoits, merely to induce a confession of property, supposed to be concealed, is to burn the proprietor with straw or torches, until he discloses the property, or perishes in the flames. And when they are actuated by a spirit of revenge against individuals, worse cruelties, if worse can be, are perpetrated by these remorseless criminals. If the information obtained is not extremely erroneous, the offender, hereafter noticed, himself committed fifteen murders in nineteen days; and volumes might be filled with the atrocities of the decoits, every line of which would make the blood run cold with horror." (*Fifth Report*, p. 603.)

It would far exceed our limits to trace in detail the cause of those evils which necessarily arose out of the very nature of the government now established. The truth is, the British were never qualified to act as legislators in India. They were too ignorant of the habits, manners, and character of the people, to meddle with their institutions, on which, however, they were continually innovating. By altering the old mode of settling the land revenues, they compromised the rights of the different classes of landholders and occupiers. Strife and contention immediately ensued, litigation burst upon society like a flood, the civil courts were overwhelmed with suits which they could not decide, and the people, des-

perate from a denial of justice, were involved in furious Hindustan. affrays with each other in prosecution of their rights, or, being driven from their lands, they had recourse to robbery for a subsistence. Business was thus, from various sources, accumulated in the criminal courts, which being encumbered with the delay, the expense, and all the tedious formalities of the English practice, proceeded with their decisions at much too slow a pace for the wants of the country; and the evil in this manner daily increased. The mischief of this delay was twofold: 1st, It allowed criminals, during the long interval between their apprehension and trial, to prepare the certain means of their escape, by the suborning of false witnesses, who, in the gross dissolution of morals in Hindustan, were always to be readily procured, and in any number; and, 2dly, It entailed a grievous hardship on the innocent, great numbers of whom were crowded into jails with the worst of felons, there to wait until the tardy hand of justice should bring them relief.

The inefficient state into which the police had fallen, Defective was also one cause of the general prevalence of crimes. police.

By the ancient institutions of the Mogul government, ample means were provided for the preservation of the public peace. In every village a permanent body of guards and watchmen was maintained, whose business it was to assist in all the subordinate details both of the revenue and police, to convey the rents of the ryot to the district collector, to watch those ryots who were in arrears, to guard their crops from depredation, to act as guides and protectors to travellers, to collect information of any offences committed, and to report the arrival in the villages of suspicious persons. For these various services they had grants of land rent-free, or on very easy terms. Besides this standing force of guards and village watchmen, the zemindar, who was at the head of the police, and was held responsible for all crimes committed within his boundaries, had under his orders a large body of *pykes*, or armed constables, whom he could call out in aid of the police service, either for the apprehension of offenders, or to prevent breaches of the peace. These establishments, though they had fallen into a state of decay at the time of the permanent settlement in 1793, and though they were frequently perverted from their original purposes, yet existed in all parts of the country, and the police force was found to be in great efficiency and strength. The zemindary of Burdwan, a tract of country seventy-three miles long by forty-five broad, which was in the highest state of cultivation, and well stocked with inhabitants, maintained a body of 2400 village watchmen, who were distributed under their respective chiefs amongst the different villages, for the double purpose of protecting the inhabitants and of procuring information; besides 19,000 *pykes*, or armed constables, who were liable to be called out, under the orders of the zemindar, in aid of the police. Instead of improving upon those ancient establishments which had taken root in the country, which were interwoven with the frame and texture of Indian society, and which were, generally speaking, efficient, though frequently perverted from their original purposes, Lord Cornwallis demolished the whole structure. According to his new scheme of police, the zemindary constables were disbanded, and their lands, which were allowed them in lieu of pay, were resumed, that is, were seized by government. The country was divided into districts of twenty miles square, over which a native police officer or darogah was placed, with fifteen or twenty armed men under his orders; he was assisted also by the village watchmen, and such of the zemindary constables as were still retained in the public service. It was soon found, however, that the new police officers could not effectually call out this array in aid of the civil power. They wanted the personal con-

Hindustan. sideration of the zemindars, who had long been looked up to with respect and reverence as the hereditary aristocracy of the country. The system, therefore, proved eminently inefficient; nor were the officers employed under the new plan found to be less corrupt than the disbanded constables of the zemindars. The merits of the plan appear to be pretty fairly estimated in the Fifth Report (p. 71), in which it is observed, that the head police officers, and "the inferior officers acting under them, with as much inclination to do evil, have less ability to do good, than the zemindary servants employed before them." How vain was it to imagine that any better materials could be found for the regulation and government of the country than those which the country itself afforded. To complain of them was to complain of the general state of society out of which they were produced; and to throw them away because they were corrupt or otherwise imperfect, evinced an ignorance of the legislator's province, which is not to create materials, but to make the best use of those which are provided to his hand. Herein, then, consisted the error of the British legislators. They cast from them the only efficient instruments which were to be found for the government of the Indian community, while they had nothing to substitute in their place; and their plans, when tried in practice, were accordingly found to be idle theories, at variance with the whole frame and order of the society for whose use they were intended.

*Prevalence
of gang-
robbery.*

The pernicious consequences of thus rashly subverting the ancient establishments of the country were soon displayed in the alarming increase of crimes. The disbanded zemindary constables, whose lands were seized, were deprived of the means of living, and they necessarily betook themselves to theft and rapine for a subsistence. The country became infested with gangs of robbers and murderers, whose horrid cruelties struck terror into the peaceable inhabitants, whilst lesser crimes also became more frequent. The police was inadequate to the detection of offenders, the courts of justice to their conviction; and, amongst other evils, a host of false witnesses now arose, amid the general corruption of morals, who swore in the teeth of each other, perplexing all judicial proceedings, and confounding the innocent with the guilty. For remedy of these complicated evils, various expedients were resorted to. Amongst others, a feeble attempt was made to revive the ancient powers which the zemindars had over the police; but this was attended with so little success, that it was abandoned in 1810. In 1808 a superintendent of police was appointed, with a view, as was stated, of concentrating, in his office, all the information which might be obtained from different quarters, and of giving unity and vigour to the measures adopted for the apprehension of offenders; and, as a last resource, a regular establishment of police spies, called *goyendas*, was organized, and placed under a species of superintendents called *girdwars*, the office of the first being to point out the robbers, that of the latter to apprehend them. Notwithstanding all these measures, crimes of every description appear to have gone on increasing; and in a minute of Lord Minto, dated November 1810, it is observed, "That a monstrous and disorganized state of society existed under the eye of the supreme British authorities, and almost at the very seat of that government to which the country might justly look for safety and protection; that the mischief could not wait for a slow remedy; that the people were perishing almost in our sight; that every week's delay was a doom of slaughter and torture against

the defenceless inhabitants of very populous countries." *Hindustan.* The directors, in whose letter of the 28th of October 1814 this passage appears, confirm the truth of the statement by the following brief observation: "That this representation of the late governor-general is not too highly coloured, would appear from the minute of Mr Lumsden, and the reports of Mr Secretary Dowdeswell, forming also part of the proceedings in regard to Mr Ernst."¹

The new scheme of employing spies, however useful in some cases, was in other respects highly detrimental to the peace of the community. Those spies, and more especially their superintendents (*girdwars*), became, in many cases, the pests of society. They took advantage of the power which they possessed of apprehending suspected persons, to extort money from them; and frequently, under threats of immediate apprehension, they laid under contribution all classes indiscriminately. It is stated, in a letter of the directors, dated October 1814, on the authority of Mr Dick, a circuit judge, that "whole villages are put under contribution, or subjected to the rapacity and spiteful machinations of the vilest members of society."² In some cases the innocent were brought to trial, and convicted, on suborned evidence, procured by these wretches.

Amongst the other causes of these evils may be enumerated the incapacity of Europeans to officiate as judges in a society so peculiarly constituted as that of India. This is a fact which is deeply regretted by all the most experienced servants of the Company, from Sir John Shore downwards. Europeans are sent out to India with the sole view of amassing a fortune. They have no interest in the country from which they draw such important benefits; they know nothing of its habits and manners, never mixing with the natives in their ordinary business or amusements, and never attaining to more than a theoretical knowledge of their characters; yet they soon begin to officiate as judges, but how miserably ill appointed for such an office their own experience quickly teaches them. They soon find the difficulty of appreciating or understanding even the most ordinary transactions of a society, with the rules and principles of which they are entirely unacquainted. What is intelligible by intuition to a native, is a mystery to them; and it is easy to conceive how these difficulties must be accumulated on them in any case involving a long train of circumstantial or contradictory evidence. It is not, as every one knows, on the mere naked testimony of a witness, that a judge entirely relies; it is the tone, the manner, the living evidence of expression and character, which impresses upon testimony the stamp of truth, which carries conviction to the mind, and saves a judge from the miserable dilemma of being blown about by every wind of opposite evidence. These discriminations are, however, far too nice for a European judge in an Indian court, and he frequently knows not what to believe. He cannot, by any judicious cross-examination, extort the truth from contradictory witnesses. In any train of questions involving the peculiar usages of the country, his stock of knowledge is soon exhausted. A story which hangs together in all its main circumstances, may yet be inconsistent in some of its minute and delicate points. But a European can never detect inconsistencies which are wrapt up in the veil of local manners, and hence he lies at the mercy of every perjured witness who chooses to practise upon his ignorance. The truth of this statement is illustrated and confirmed by the concurring reports of many of those who have acted in this trying situation. Sir Henry Strachey, whose reports to the supreme government abound

Spies.

*Incapacity
of European
Judges.*

¹ See *Papers relating to the Police and to the Administration of Civil and Criminal Justice in Bengal, Fort George, &c. from 1810 to the present time.* Printed in 1819, p. 24.

² *Papers printed by order of the House of Commons, 1819.*

Hindustan. in most just, enlightened, and comprehensive views of Indian society and manners, observes, that "nothing is more common, even after a minute and laborious examination of evidence on both sides, than for the judge to be left in utter doubt respecting the points at issue. This proceeds chiefly from our very imperfect connection with the natives, and our scanty knowledge, after all our study, of their manners, customs, and languages. Within these few years, too, the natives have attained a sort of legal knowledge, as it is called; that is to say, a skill in the arts of collusion, intrigue, perjury, and subornation, which enables them to perplex and baffle us with infinite facility." "We perhaps judge too much by rule; we imagine things to be incredible because they have not before fallen within our experience. We make not sufficient allowance for the loose, vague, and inaccurate mode in which the natives tell a story; for their not comprehending us, and our not comprehending them. We hurry, terrify, and confound them with our eagerness and impatience." "We cannot," adds the same discriminating observer, "study the genius of the people in its own sphere of action. We know little of their domestic life, their knowledge, conversation, amusements, their trades and castes, or any of those national and individual characteristics which are essential to a complete knowledge of them. Every day affords us examples of something new and surprising; and we have no principle to guide us in the investigation of facts, except an extreme diffidence of our opinion, a consciousness of inability to judge of what is probable or improbable." "The evil I complain of is extensive, and, I fear, irreparable. The difficulty we experience in discerning truth and falsehood among the natives, may be ascribed, I think, chiefly to our want of connection and intercourse with them; to the peculiarity of their manners and habits, their excessive ignorance of our characters, and our almost equal ignorance of theirs." The following passage, from the same document, gives a striking view of the inefficiency of European judges: "The evidence on every trial convinces us, that innumerable robberies and murders, that atrocities of the worst conceivable kind, are committed, and that very often the perpetrators are before us; yet do we find ourselves, from causes of the nature above described, constrained to let them loose again to prey on society, or, at the utmost, to direct that they be discharged, on giving security for their good behaviour." "The judge of circuit is from day to day engaged in trying large gangs for robbery and murder, and letting them go; and the country continues to be overrun with them, to a degree truly deplorable."

New measures.

The directors of the Company in Europe, as soon as they were informed of these vices and disorders in their Indian government, displayed the most praiseworthy zeal in their endeavours to remove them. Far from blaming the freedom with which they were exposed, or seeking, by palliations, to evade the truth, they listened to the representations of their servants; and, in many cases, followed their judicious and enlightened suggestions. One of their first cares was to re-establish the vigour and efficiency of the police. It was soon found that the system established in 1793, not being connected in any degree with the institutions or local manners of the country, was ill adapted to its end; and that the subversion of the ancient establishments, on the ruin of which it was founded, had been attended with the worst effects, and had paved the way for all the disorders and evils with which the country had been afflicted. Hence it has been the policy of the government to restore the ancient institutions of the country, and to revive for the public service

the ancient array of village watchmen and zemindary constables, formerly disbanded. In many cases their efforts have been attended with success. A new energy has been infused into the police; and this, joined to the activity of the local magistrates, has had the effect of greatly diminishing the crime of gang-robbery, as well as other crimes. This fact is placed beyond a doubt by the records of criminal justice, from which it appears, that in Bengal the atrocities which formerly spread terror throughout the peaceful country, have been greatly diminished in number by the vigilance of the police and the great exertions of the local magistracy.

Number of Persons sentenced to Death by the Court of Nizamat Adawlut (chief Criminal Court) of Bengal. Decrease of crime.

From 1816 to 1821, including a period of six years...490
From 1822 to 1827.....366

Decrease.....124

Sentenced to Transportation or Imprisonment for Life.

From 1816 to 18211758
From 1822 to 1827880

Decrease.....878

Number of Persons tried before the Circuit Courts of Bengal.

From 1816 to 1818, three years,—Burglary.....2853
From 1825 to 1827, do.....do.....1036

Decrease.....1817

From 1816 to 1818, three years,—Cattle stealing.....203
From 1825 to 1827, do....do.....31

Decrease.....172

From 1816 to 1818, three years,—Larceny.....1516
From 1825 to 1827, do.....do.....223

Decrease.....1293

In the Lower and Western Provinces of Bengal.

	No. Sentenced.	Decrease of Crime.
	1826.	1827.
Arson.....	154	31
Burglary.....	2,433	1,995
Frauds.....	6,161	3,302
Larceny.....	8,301	7,927
Plundering,	768	97
	17,817	13,352
		4,465

In the western and lower provinces the number of murders without depredation were,

	Western Provinces.	Lower Provinces.
In 1818 and 1820.....	496	319
In 1827 and 1828.....	255	194
Decrease.....	241	125

Number of Depredations accompanied by Torture and Wounding.

	Western Provinces.	Lower Provinces.
In 1818 and 1820.....	1000	545
In 1827 and 1828.....	512	221
Decrease.....	488	324

¹ Answers to Interrogatories of Government, 30th January 1892, Fifth Report.

Hindustan.

In 1807, gang-robberies amounted to 1481
In 1824, to.....234

Decrease...1247

In 1807, wilful murders amounted to...406
In 1824, to.....30

Decrease...376

In Kishnagur, formerly notorious for gang-robberies, they decreased from 329 in 1808, to 10, their amount in 1824.

These records present a satisfactory view of the decrease of crime under the British rule in India; and it is ascribed, not to any improvement in the morals of the people, but to the great efforts of the magistracy, and to the increased efficiency of an improved police, in which the native officers are remarkably active.

The judicial establishments of Bengal consist of,

Judicial
establish-
ments.

1st, A high court of appeal, termed the Sudder Dewanny Adawlut; and the Nizamut Adawlut, or the chief civil and criminal court, which sits in Calcutta. A chief judge presides, with a salary of L.6000 a year, assisted by three puisne judges with L.5000 each. This court has power to revise the sentences of the inferior courts, and to mitigate them if excessively severe; to suspend provincial judges; and to receive appeals from the inferior courts. Its construction of the regulations or edicts issued by the governor-general is final.

2d, There are six provincial courts of appeal in Bengal, with a chief and puisne judge in each, for the trial of civil cases, in which the matter in dispute exceeds 10,000 rupees in value. They may try suits not exceeding 5000 rupees, if the plaintiff desire their decision. In the case of appeals their decision is final, except in special cases.

3d, There are twenty commissioners of circuit in Bengal, who combine revenue with judicial functions. They are criminal judges, who hold sessions of jail delivery at least twice in each year, who have also the direction and control of the magistrates, revenue officers, and police. They have each a salary of L.4000 a year.

4th, The city and zillah or district courts amount to forty-nine in Bengal. They have a judge, magistrate, and registrar, or, where the business is not extensive, a judge and magistrate, or a magistrate and registrar. These courts take cognizance of affrays, thefts, burglaries, &c., try original suits to the value of 20,000 rupees, decide appeals from registrars in cases not exceeding 500 rupees in value, and from sudder aumeems (native judges) and moonsifs. By a regulation of the governor in 1832, three zillah judges may be invested by the governor-general with power to hold sessions and jail delivery. From the zillah courts an appeal lies to the provincial courts; and, by a regulation in council, it was declared competent for the governor-general to establish in any part of the presidency a native court, to be superintended by a native judge; and also, by a regulation passed on the 11th of September 1821, he was empowered to authorize any judge of circuit to assemble native juries in criminal cases. Many distinguished persons in the service of the Company, and thoroughly acquainted with the Hindu character, have long recommended the employment of natives in the administration of civil and criminal justice. Native courts of justice have accordingly been constituted, and it would appear that they had satisfactorily executed their duties; for we find, in consequence of the

heavy accumulation of suits in the zillah and city courts, Hindustan. a regulation of the governor-general, dated the 27th of December 1827, extending their powers to suits in which British subjects are engaged, to the amount of 1000 rupees, which were formerly excepted from their jurisdiction. In 1832 an extensive establishment of zillah and city courts was begun. A regulation passed in that year by the supreme council of Bengal ordains, that such of the natives, of whatever caste or religion, as are found qualified, by their attainments and good character, are to be employed in the zillah (district) and city courts, as civil and criminal judges, with liberal salaries, and, more recently, as assessors on the bench, along with European judges.

A similar plan of judicature is in force at Madras and Bombay. At Madras Colonel Munro, when he was governor, was extremely anxious for the introduction of the trial by punctayet, or native juries; and a regulation, dated the 31st of August 1827, was issued for allowing native juries to be assembled in criminal cases.¹ The office of a native judge was also constituted for the trial of criminal cases, by a regulation issued the 31st of August 1827. By the governor and council of Bombay a regulation was issued in 1830, extending the jurisdictions of native courts to all original suits, of whatever amount.

At each presidency there is a supreme or king's court, with a chief judge and two puisne judges, a master in equity, registrar, an established number of attorneys and barristers, at the discretion of the judges; and at Calcutta a Hindu and Mahomedan law officer is attached to the court. The jurisdiction of this court extends over the presidency, with certain exceptions not well defined; and in certain cases a jurisdiction is claimed beyond the presidency, though it has been doubted whether such claims rest on any sure foundation of law. There are at Calcutta and Bombay courts of requests for the recovery of small debts, the recorders of which are Europeans.

The zemindary settlement was extended to Benares in 1795. It was introduced into the ceded territories of Oude in 1801 and 1803. The country was divided into seven districts, with a judge and magistrate and collector in each; and a court of appeal and circuit, with a suitable establishment of officers, fixed at the town of Bareilly. The lands were let at first for three years on increasing annual rents, by which the tax was raised from its amount in 1801, of 13,523,474 sicca rupees (L.1,600,000), to 19,161,486 rupees, being an increase on the existing tax of more than 40 per cent. and a foretaste to the oppressed peasantry of the blessings they were to derive from British rule. In 1805 it was proposed to extend the permanent zemindary settlement to the provinces acquired from Scindia and the rajah of Berar, being the Doab, and a tract on the right bank of the Jumna, the province of Cuttack, and of Bundelcund on the right bank of the Jumna above Allahabad. Objections, however, having been made to this measure, the lands have been let since 1810 to the zemindars, on leases of five years; and the assessments have as usual been enormously increased, from 19,426,787 rupees (L.2,266,457), the amount in 1807, to 31,427,494 (L.3,666,540) in 1818-1819. But here, as in all other cases, the revenue has been improved at the expense of the country; and accordingly we find Lord Moira regretting the sale of lands in these provinces for outstanding balances, and the evasion of the copartnership rights by which these estates were held, at "the expense," he adds, "of the well-being and peace of the district, which it invariably disturbs."²

¹ It is remarkable that these enlightened regulations of Colonel Munro, for improving the condition of the natives, were disapproved of by two out of the three judges of the Sudder Dewanny Adawlut, and by ten out of the twelve judges of the courts of circuit; by several of the other members of the council at Madras, namely, Sir G. T. Walker, who alleged, and with some appearance of reason, the corrupt morals of the natives. This was, however, a difficulty to be overcome.

² Rickards' India, vol. I. p. 399.

Hindustan. The ancient territories attached to the presidency of Madras contained two descriptions of land-tenures, namely, the lands occupied by the zemindars or polygars, and the Havelly lands under the immediate management of the government. In letting these lands, it was the practice either to receive from each cultivator his tax in kind, in which case it was necessary to maintain a large establishment of revenue officers, or to let the lands to a revenue farmer, on whom extensive powers were necessarily conferred, and consequently ample means of oppression. Another mode of settlement was with the head inhabitants of the villages, who contracted for the public tax, which they collected from the ryots. The ancient possessions attached to the presidency of Madras were, the Jaghire, which had been desolated by the invasion of Hyder Ali in 1780, and the Northern Circars. The revenues of the Jaghire had been collected by village settlements from 1789 to 1802-3, when it was divided into sixty-one estates of from 2000 to 5000 pagodas of annual rent, and sold to the highest bidder. The permanent settlement was introduced into the Northern Circars in 1802 and 1803. The assessment in some of the zemindaries exceeded a lac, or 100,000 pagodas, though it did not include the sayer duties, which consisted of imposts on houses, implements of agriculture or trade, on merchants, artificers, &c. This assessment was not framed on any accurate knowledge of the resources of the country, but any error that was made was on the side of excess. It was the poor peasantry who suffered for the ignorance of the collectors, who were determined not to underrate the lands.

Quidquid delirant reges, plectuntur Achivi.

The Jaghire, in 1784, had not recovered from the devastation of Hyder's invasion; it still remained a monument of the miseries of war; and to all these calamities was now superadded, Mr Rickards justly observes, "a revenue administration, the basis of which was the exaction of a land-tax from the wretched remaining inhabitants, equal to one half the gross produce of the soil."

The modern possessions of the Madras presidency are by far the most extensive, and comprise the Carnatic and Mysore; the whole peninsula of India, in short, south of the Toombudra and Kistnah rivers. Most of these lands, except such as are held by the polygars or zemindars of Southern India, had been farmed out in extensive tracts by the native rulers to individuals, by whom they were subset to the head men of the villages, who collected the tax from the cultivators. This mode of farming the revenues was after some time given up for the village or *mouzawar* settlement, according to which the intermediate agency of the renter or farmer was superseded by that of the government collector, who contracted for the whole assessment with the head man of the village. This plan of village settlements was again abandoned for the *ryotwar* or the *kulwar* settlement, which only differed from the village settlement in this, that it substituted the government collector for the head man of the village, and thus abolished all intermediate agency between him and the ryot. In the village settlement, the great farmer or revenue speculator was superseded in his agency

by the pottail or head man of the village; in the *ryotwar* settlement, the pottail or head man of the village was superseded by the government collector, who undertook the duty of settling individually with each ryot for his rent. With this view an exact scrutiny was instituted into the whole produce of the country. Every field was surveyed, measured, and re-measured; its name was entered in the register, and where it had no name it received one; red land was to be distinguished from black land; trees, rivers, wells, forts, open villages, were to be all specified; the inhabitants to be enumerated; their cattle, buffaloes, sheep, goats, &c., in short, every thing taxable, was to be brought to account in the *ryotwar* survey.¹ The assessors followed in the train of the surveyors, and a host of revenue officers was spread over the harassed country. The object of this severe scrutiny into the produce of the land, was to ascertain the highest assessment which it could possibly bear. It was not to lighten the burdens of the poor ryot that his means were so rigidly inquired into, but to find out how much he could pay without being utterly ruined. "The survey valuation," it is observed in the Fifth Report of the Select Committee (p. 120), "regulated on the principles which have been described, rather constituted the *maximum* of assessment, than the absolute demand upon the cultivator for that assessment."² This *maximum* of assessment is what is also called the *standard rent*, or *jumma*. "Alterations in the assessment," says the Report, "were also occasioned by the gradual increase made to it, as the circumstances of the cultivators and the state of agriculture improved, in order to raise it to what was considered the *standard rent*." Thus it was obviously a scheme for racking the country. From the survey a maximum or standard assessment was calculated, that is, the highest assessment which the country could possibly bear; and this, though not immediately taken from the ryot, was the standard to which it was understood that his assessment would be ultimately raised as his circumstances improved. It was the reward that awaited his successful cultivation of the land; and in this case he had little encouragement to sow, when another was to reap. "Under this mode of adjusting the rents of a village," it is said in the Fifth Report, "the ryot knew before he set his oxen to the plough, and dropped his seed into the ground, what was the utmost limit of rent that he could be called upon to pay; and that the advantage of additional labour upon his field would be all his own, as well as the advantage of additional produce in an abundant season. He also knew that in an unfavourable season an abatement would be made in his favour if his diminished means rendered him unable to satisfy it. He further knew, that if the pottail required him to pay more than the sum at which his rent was finally fixed by the collector, he had only to prefer his complaint." (P. 121.) When the standard rent, as it is called, was greater than the ryot could pay, being calculated not on the produce, but on the producing capacity of the soil, of what advantage was it to him that it could not be raised higher? He did not, as is here stated, know either that the advantage of additional labour upon his field, or that the additional produce in an abundant season, would be all his own, as the assessment was raised with his improving circumstances; and the ex-

¹ See Instructions to Surveyors, by Colonel Munro, the great patron of the *ryotwar* settlement, *Fifth Report*, Appendix, p. 787.

² William Chaplin, Esq. who was employed as registrar under Sir T. Munro in the Ceded Districts, after mentioning that a survey, classification, and assessment was undertaken by Sir T. Munro in the year 1801, and completed in 1806-7, gives the following conclusive evidence respecting the nature of the assessment:—"Was the assessment fixed the highest assessment which it was thought fit in any case to exact for the land? Yes. It was a maximum assessment, which was never expected to be wholly raised; it was a maximum assessment, beyond which no collection was ever to be made afterwards; it was an assessment, the total of which was avowedly too high at the time to be realized, without occasional and partial remissions; and it was recommended afterwards to be reduced. Was any abatement made? No abatement was at that time made. A discretionary abatement was every year made by the collector, whenever there was a partial failure of the crops, from drought, or from the poverty of the inhabitants. Still the sum demanded was the maximum assessment? The sum demanded was the maximum." (See Minutes of Evidence before the Lords' Committee, 30th March 1830, p. 176.)

Hindustan. tra produce of an abundant year was taken to compensate the remissions of a bad year.¹ Besides, as the harvest advanced, the revenue officers again spread over his fields to gauge the produce and to fix the annual rent. When the crop failed to a great amount, the deficiencies of one village were re-assessed on the neighbouring villages; so that the ryot was far from "knowing, before he set his oxen to the plough, and dropped his seed into the ground," the utmost limit of rent he had to pay; and with regard to any complaints against the potail, the directors observe, "it is vain to say that the ryots are protected against harassing and vexatious proceedings by courts of justice; for the loss of time and the expense incident to a legal process, and the delay in decision, will in nine cases out of ten prevent the ryot from appealing to the court." The revenue board at Madras observe on the ryotwar settlement, "the system then was, to *make as high a settlement as it was practicable to realize*; if the crop was good, the demand was raised as high within the survey rate as the means of the ryot would admit; if the crop was bad, the last farthing was notwithstanding demanded, and no remission was allowed, unless the ryot was totally unable to pay the rent. On this point the most severe scrutiny was instituted; for not only was the whole of the collector's detailed establishment of servants employed in an investigation of his means, but his neighbours were converted into inquisitors, by being themselves made liable for his failure, unless they could show that he was possessed of property."

It is thus obvious that the much boasted ryotwar settlement is, like all the other continually changing plans introduced by the East India Company's servants, an elaborate scheme of extortion, founded on the idea of the proprietary right of the sovereign to all the lands within his dominions. But, besides the land-tax, amounting to forty-five or fifty per cent. on the gross produce of the soil, there are other taxes, called *sayer*, *moturpha*, or *weesabundy*, being taxes on the profits of merchants, traders, manufacturers, craftsmen, taxes on houses, shops, looms, tolls, mechanical and agricultural implements, all which are embraced in the collector's survey, and appear to have been rigidly exacted. "The mode of settling the moturpha on looms," says one of the collectors, "has hitherto been very minute; every circumstance of the weaver's family is considered; the number of days which he devotes to the loom, the number of his children, the assistance which he receives from them, and the number and quality of the pieces which he can turn out in a month or year; so that let him exert himself as he will, his industry will always be taxed to the highest possible degree." Colonel Munro has described the tax on house-rent, or, as he calls it more properly, a tax upon income, to be levied in a manner the most arbitrary, and which offends against every principle of taxation. It extends to the poorest class of labourers, who pay one or two rupees, though their hut is not worth more than from five to ten rupees. This tax Colonel Munro points out as a source of increasing revenue; and when he found it higher in one district of the ceded provinces than another, he equalized the tax, not by lowering, but by raising it everywhere to the same level, and even suggested that it might be increased "as the circumstances of the country improve;"² so that it would appear as if there were no end to the demands of the state, thus prowling into the re-

cesses of domestic industry, and casting as it were its evil Hindustan. eye on every species of increasing wealth. This rigid scrutiny, not so much into the actual resources, as into the productive capacity of the soil, was with a view to a permanent settlement of the land-tax; and this permanent settlement was prospective, as the tax was to keep pace with the improvement of the country.

The ryotwar settlement was substituted for the village settlement in the southern parts of the peninsula, in Salem and Kistnaghery, amongst the Carnatic polygars or military chieftains of the country, and in Ramnaud and Dindigul; and in 1802 and 1804 the permanent settlement with the zemindars or polygars was introduced, the land being divided into estates, and sold to individuals under the burden of the standard rent, to which the actual rent had not yet risen. The country had previously been the scene of great confusion, from the rebellion of the polygars; the land-rent had risen 117 per cent., from 168,305 to 344,682 pagodas; and the *standard* rent, now fixed, was, as usual, higher than the country could bear. The estates of the landholders were accordingly brought to sale for arrears of rent, and the lands which had been purchased were mostly resumed by the government. The province of Dindigul is in particular described by Sir Thomas Munro himself, as being in 1821 in a state of deplorable disorder and oppression from high taxes. A keen but very useless controversy has been maintained amongst the Company's servants regarding the respective merits of the zemindary, the village, or ryotwar settlements. But it is not the mode of levying the tax, but the amount, which is the grievance, and the standing source of misery all over India. The permanent settlement having been discontinued in 1804 by order of the directors, was not extended to the other territories under the presidency of Madras.

In the country known under the name of the Ceded Districts, being ceded to the Company by the nizam in 1792, extending south-east from the Toombudra river as far as the Eastern Ghauts, equal in extent to Scotland, and containing about two millions of inhabitants, the ryotwar settlement was introduced by Colonel Munro in 1800, and continued till 1807-8. During this period the land revenues were raised from 1,006,593 pagodas (L.402,637), to 1,517,272 (L.606,909); and in 1808-9 they amounted to 1,802,570 (L.721,038), of which the sum of 1,669,908 pagodas (L.667,963) consisted of land revenue. The ryotwar was superseded by the village settlement, which comprised three years from 1809, after which, in 1811-12, commenced a decennial settlement of the Ceded Districts. The country was oppressed by this heavy assessment; and under the village settlement the head men of the villages (potails) declined to contract for the rent. Speculating renters were accordingly introduced, whose severe exactions increased the general distress, and numbers of the ryots emigrated to Mysore. In 1817 it was determined again to try the annual ryotwar settlements, when the decennial village settlements would expire in 1820-21; and Sir Thomas Munro, now governor of Madras, prepared to carry into effect the views of the directors. Many humane and excellent regulations were passed to prevent the oppression of the ryots; and the benevolent intentions of the court of directors may be traced in their va-

¹ Colonel Munro himself states this to be the rule of settling. "Were it even possible," he observes, "to estimate exactly the actual loss in every year, it would not follow that it ought to be remitted; for the same cultivators who have lost this year may have gained the last; and as no extra assessment was laid upon their profit, no remission can now fairly be claimed for their loss. Whatever may have been the crop, should it have even been less than the seed, they should always be made to pay the full rent, if they can, because good and bad seasons being supposed to be equal in the long run, the loss is merely temporary, and the making of it good is only applying to the deficiency of a year of scarcity, the funds which have arisen from one of abundance." (See Extracts of Proceedings of the Board of Revenue at Fort St George, 19th May 1803, *Fifth Report*, p. 748, 749.)

² Rickards' *India*, vol. i. p. 482.

³ See *Fifth Report*, Appendix, p. 942, Extract from the Report of the Principal Collector of the Ceded Districts, 15th August 1807. VOL. XI. 3 M

Hindustan. rious despatches on the subject. But still the only mode of relieving the country was to lessen the amount of the tax, and without this, no regulations, however wise, will ensure the prosperity of the subject.

In the southern division of Arcot the ryotwar system was introduced in 1805-6, by Mr Ravenshaw, who gives a melancholy picture of the state of the country. "The miserable appearance of the villages," he observes, "a great portion of the inhabited houses of which are without roofs; and of the inhabitants, a great number of whom are clothed in the garb of extreme misery; must touch the heart of one who has any spark of sensibility for his fellow creatures." From this state of extreme depression the country gradually revived, and the revenue improved under the judicious management and moderate assessment, of which the collector was a strenuous advocate.

On the western coast of India, the provinces of Malabar, Canara, Coimbatore, &c. were subjected to the rigorous survey of the ryotwar settlement. In Malabar, the collectors under the Bombay government, on the notion of the sovereign's proprietary right to the lands, claimed fifty per cent. on the gross produce, which it was impossible to realise, though the clearest rights of property were trampled under foot, and the prejudices of the country deeply wounded, by the sale of lands, the consequence of over assessment, and by the ruin of the ancient aristocracy.¹ A rebellion was the consequence, which was rigorously and with all due severity put down, and the province transferred to the Madras government, whose collector, we are told, in 1801-2, effected a sudden rise of about fifty per cent. in the land revenue, by adopting rates of assessment inconsistent with long-established local usage, and from which it was soon after found expedient to recede.² The lands were over-assessed; in many cases, after they were sold, the proprietors were thrown into prison, and there kept for years, by the severity of the collector.³ A ryotwar survey of the province was undertaken by the principal collector, who, being obliged to leave the province, its revenues were successfully administered by the new collector Mr Warden, by whose judicious advice a fresh survey was averted for a time, as inconsistent with the customs of the country, and the existing state of property. In 1833, against the earnest remonstrances of the inhabitants, a strict ryotwar survey was begun, of the

most inquisitorial nature, not only into the produce of land, but into the profits and all the implements of trade and manufactures. The absurdity and injustice of this assessment, and the hardship which the people suffered from the monopolies on timber, tobacco, salt, &c. appear, from the evidence given in 1830 before the Lords' Committee on the affairs of India, to have been very great. By the timber monopoly, which was the source of great complaints, the price was raised so as to stop ship-building. In many parts the timber on an estate constituted its chief value; and the government monopoly therefore amounted to an extinction of the rights of property, and was the cause of unspeakable discontent and distress. A conservator of the public forests was appointed; and as the distinction between public and private property was often doubtful, the proprietors and occupiers of land were prevented from cutting down wood even for the most necessary purposes, under pretence that it belonged to the Company, though by his orders all the wood on their estates might and often was cut down.⁴ This monopoly was abolished in 1823 by the advice of Sir Thomas Munro, who, though he administered a bad system, acted on this as on other occasions with the most enlightened humanity. The monopoly of salt was equally grievous to the inhabitants, and occasioned dreadful complaints. The landholders depended in many cases on the manufacture of salt for paying the rents of their lands. They were accordingly ruined by the suppression of the salt pans in Malabar, the compensation given them being very inadequate; and it was besides estimated that 6438 persons were thrown out of employment.⁵ Tobacco, almost a necessary of life in the moist climate of Malabar, where the fall of rain is 140 inches, three times more than in the adjoining province of Coimbatore, or on any part of the Coromandel coast, was raised 800 per cent. by the monopoly. One of the collectors, Mr Baber, made strong representations against these enormous abuses, by the continuance of which he was afraid that the people would be driven into rebellion. Tobacco was in consequence smuggled into the country from Coimbatore by gangs of contraband traders, of bad character, and ripe for any villany.¹ The revenue was raised from 217,619 pagodas, its amount in 1800-1, to 638,488.

The province of Canara was committed to the manage-

¹ See Lords' Committee, Evidence of T. H. Baber, Esq. Have there been any sales of land for arrears of revenue? Very considerable. So much so, that almost an entire revolution has taken place in property within the last thirty years. When a tenant of a small estate failed to pay, did the collector immediately sell that portion of his estate? No. In the first instance his person was liable, then his moveable property; every article of every description, every thing which could be laid hold of, was seized and sold; and that failing, then the land; even slaves have been sold, the same as cattle. 31st March 1830.

² *Fifth Report*, Appendix, p. 798, Extract from the General Report of Revenue at Fort St George, 5th October 1808, on Malabar revenues.

³ See Evidence of T. H. Baber, p. 206.

⁴ The cruelty of this monopoly, and the misery and vexation which it occasioned to the inhabitants, are forcibly described by Sir Thomas Munro in a minute which he drew up on the subject. After pointing out the situation of the ryot when he had the complete control over his wood of every kind, he observes, "But what is his situation now? He cannot cut down or sell a bit of wood on his own property, for the most ordinary purposes; he cannot even remove the young teak plants which spring up from seeds scattered by the winds, though they are injurious. Though he cannot himself cut down his own trees, the conservator cuts them down at pleasure, both on his hills and in his fields and gardens, and makes him pay duty on the wood; and he not only levies duties, but he confiscates property. A monopoly, or even any restriction, on the cutting of wood, is, in Malabar, vexatious and oppressive in the highest degree. Wood is wanted in large quantities for every purpose, for boats, houses, barns, and granaries. In a country where the fall of rain during the five monsoon months is from a hundred to a hundred and sixty inches, and sometimes nearly fifty inches in one month, it is almost impossible to make any building water-proof. The houses of all the more substantial rayets (cultivators) have a double roof, or two stories: in the lower the family resides; the upper serves as a lumber-room, but its chief use is to defend the lower, and carry off the water. The barns and granaries are necessarily constructed in a still more substantial manner, because a great part of the grain is reaped in the rainy season, during short intervals of sunshine, and, in order to be dried instantly, carried into the barns, which are made large for that purpose. The principal public buildings were formerly covered with copper, as the only means of completely excluding the water. The copper was stripped off and coined into money by Tippoo Sultan; but we go beyond him; he only deprived them of copper, but we of their roofs, or, what is the same thing, we prevent them, by our restrictions, from replacing them. These harsh measures have had their natural result; clamour and confirmed aversion and discontent, if not open resistance."

⁵ See Evidence before Committee of Lords, by T. H. Baber, Esq. p. 214, April 1830. Commissioner Græme, in his letter to the board of revenue, 31st August 1830, mentions other frauds connected with the salt monopoly. He says that the government, on purchasing salt, are in the habit of pressing it down with hands and feet in the wooden measure; but when they sold it, of filling it up as light as could be, which made a difference of 20 per cent.; and other differences of measurement made an additional 20 per cent. See also Rickards, himself a principal collector in the province at the time, vol. i. sect. xvi. p. 542, et seqq.

Hindustan-ment of Colonel Munro, who, by his vigilant administration, restored tranquillity in the country. Yet Colonel Munro, with all his great qualities, was a strict assessor; and the rent imposed upon this district must have been high, as, though he mentions that he disapproved of the numerous additions made to the ancient land-rent by Hyder and Tippoo, and says, "had such an assessment as that introduced by Hyder and Tippoo existed in ancient times, Canara would long ago have been converted into a desert," yet he adds, "I did not think myself at liberty to depart widely from the system which I found established, as it is the same as that which exists in all the provinces which the Company have acquired in the last and former wars. I have made no other reduction in the assessment of Tippoo Sultan than such as was absolutely necessary in order to ensure the collection of the rest. I considered myself merely as a collector, who was to investigate and report upon the state of the country, but who was to leave it to the board to decide as to the expediency of lowering the assessment."² The zemindary settlement has never been extended to any portion of the territories under the Bombay presidency, nor to the districts ceded on the Nerbuddah and by the rajah of Berar in 1826; the greater part of these territories being all assessed by villages.

Revenue and taxation. The other sources of the East India Company's revenue are the monopolies of salt and opium, custom duties both by sea and land, though the latter, from the obstructions which they occasion to trade, are in the way of being abolished; a stamp duty on conveyances, contracts, leases, policies of insurance, and deeds of every description; also on judicial proceedings. The mint, in which a seigniorage of two per cent. is charged on the coinage, and the post-office, yield an inconsiderable revenue. Of these various modes of taxation, the monopolies of salt and opium are the most objectionable. The opium monopoly was formerly a source of fraud and oppression, the cultivator being compelled to raise this article on pain of losing his land, and, in the event of a deficient produce, though occasioned by adverse seasons, being liable to punishment unless he made up the quantity, which he could only do by buying at a higher price than he expected to receive. Other frauds were practised by the collector or his agents, such as making pecuniary advances to the ryots in a light currency, and in using light weights in the weighing of the produce.³ These frauds were inquired into and checked by the humanity of Lord Cornwallis in 1788. Treaties, as has been already mentioned, were entered into with the native princes for extending the opium monopoly to their territories. But these treaties, at the request of the princes, to whose subjects they were a continual source of vexation, were relinquished; and the trade in opium being now free, except in the Company's territories, the monopoly can scarcely be so profitable, owing to the reduction of price in the China market, from the competition of opium from Malwah and other provinces. The profits of the opium monopoly amounted in 1828-29 to L.1,930,891.

The monopoly of salt, which is so necessary to give a relish to the insipid food of the poor Hindu, is a still more pernicious device for raising money, and was formerly the source of great oppression; the molungees or salt-workers in Bengal being one half of them (the Adjura molungees) held under a species of bondage, and compelled to work at half the rate of wages received by the Ticka molungees, who worked by free compact.⁴ This injus-

tice was also inquired into and redressed by Marquis Hindustan. Cornwallis. Still the restraint under which such a monopoly lays the industry of the country, and the high price to which it raises a necessary of life, is a serious oppression, more especially as a revenue of equal amount might to a certainty be raised by a tax on the article with a free trade. The following table contains the latest account of Indian taxation:—

Direct Taxation.

Land-revenue	L.12,895,366
Farms, licenses, and tax on professions, 152,780	
Sayer and Abkaree	861,196
Territories on Nerbuddah.....	457,923
Burmese cessions	117,326
Mysore and other subsidies.....	392,355
Ava, Bhurtpore, &c.....	491,249
Marine receipts.....	77,787
	<hr/>
	L.15,445,982

Indirect Taxation.

Salt sale, and licenses.....	L.2,700,147
Customs (sea and land).....	1,869,634
Opium.....	1,930,891
Post-office	135,617
Tobacco	85,128
Mint receipts	19,414
Stamps	368,431
Judicial.....	126,464
	<hr/>
	L.7,235,726

It will now be proper briefly to revert to the mercantile character of the East India Company; to give some account of its cash transactions and its commercial privileges, together with the general result, as it appears in the present state of its affairs. Mercantile character of the East India Company.

The capital stock of the Company was originally L.2,000,000, and by successive enactments was increased as follows:

In 1708.....	L.2,000,000
1786.....	800,000
1789.....	1,000,000
1794.....	1,000,000
	<hr/>
	L.6,000,000

Part of this capital was subscribed at a rate greatly exceeding the nominal amount. In 1794 there was paid for one million of stock the sum of L.2,027,295; and the whole amount paid into the Company's treasury for capital stock amounts to L.7,780,000.

As long as the attention of the Company was confined merely to trade, the annual dividend, which, from the year 1708 to 1766, varied from five to ten per cent. may be taken as a tolerably fair criterion of the profit gained. The acquisition in 1765 of the sovereignty and revenues of Bengal gave rise amongst the proprietors to the most extravagant anticipations of wealth, and, on the faith of these, the dividend, as already mentioned, was raised to ten, and afterwards to twelve per cent. But these expectations proved fallacious, and it was, in 1773, lowered to six per cent. It was afterwards raised to eight, and in 1793 to ten and a half per cent. Ever since the acquisition of the sovereignty of Bengal, it was not so much from trade as from revenue that the Company's profits were expected to arise. It was by the remittance of a large sur-

¹ See Evidence of T. H. Baber before Lords' Committee, p. 212.

² Fifth Report, Appendix, p. 803, Extracts from the Report of the Principal Collector of Canara.

³ Revenue Consultation, 1789, Answers of the Collectors in the opium districts to the Queries of the Board of Revenue, 1788.

⁴ See Appendix to the Second Report of the Select Committee on the Affairs of the East India Company, p. 169.

Hindustan. plus revenue from India that the proprietors hoped to be enriched. These hopes, however, have not been fulfilled. A large and increasing revenue has indeed been collected, but it has been invariably followed by an increase of charge and of debt. The constant increase of the charge is a standing subject of complaint in the correspondence of the directors with their servants in India, whom they frequently accuse of the grossest profusion and corruption, reproaching them with the enormous expense of their establishment, and urging them, in the most earnest manner, to retrenchment and economy; whilst the servants, on the other hand, always hold out the fairest promises of their future management, and flattering statements of revenue, to be regularly overturned by the increasing charges of the succeeding year.

When Lord Clive was sent out to India in 1765, it was for the purpose of securing the Company's revenue from the profusion and mismanagement of corrupt servants, against whom the clamour in this country was loud and general. No amendment, however, took place, and the directors continued their complaints. During the ten years administration of Mr Hastings, which commenced in 1772 and ended in 1783, the Company were deeply involved in the wars and politics of India, the effect of which, on the finances, appears to have been to increase both the revenue and the charge, and in the same proportion to accumulate debt. In 1772 the revenues of Bengal, Bahar, and Orissa amounted to L.2,373,650, and the charges to L.1,705,279; producing a surplus of L.668,371. The India debt amounted to L.1,850,166. In 1785 the revenues of Bengal, Bahar, and Orissa, including the new revenue of Benares, amounted to L.5,315,197, and the charges to L.4,312,519; thus producing a surplus of L.1,002,678; to counterbalance which, however, the debt in India was increased to L.10,464,955. With the management of their affairs in India the directors seem never to have been satisfied; for we find them about this period complaining that certain late revenue regulations were made, "rather with a view of creating lucrative posts for a certain description of men, than with any design either of increasing the revenue or of promoting commerce." In the same strain we find them complaining, in a letter to Lord Cornwallis, of a disposition in their servants to "innovation and experiment, without urgent necessity or apparent cause, new institutions, and almost instant deviations from them, multiplication of offices, and increase of salaries." These, they continue, "are always introduced with flattering schemes of increase to the revenue and diminution of expense, which has hardly, in any instance, been realized by the event." In consequence of this constant increase of expense, though the Company's revenues were increased, the surplus revenue was diminished. In the same letter the directors state that it was one million less than in the year 1766, when the Bengal revenues were acquired.

In 1793 the revenues amounted to L.8,225,628, and the expense to L.7,007,050, thus yielding a surplus of L.1,218,578; and the debt was reduced to L.7,971,665. This state of the Company's affairs became the subject of the most extravagant declamations both in parliament and elsewhere. The old delusion of Indian wealth, nearly as absurd as the South Sea bubble, was successfully revived; annual remittances of treasure were anxiously expected and confidently promised; and the expected surplus was most gravely appropriated by acts of parliament to its appointed ends. Mr Dundas was the principal actor in this solemn farce, in which, being probably credulous himself, he imposed on the credulity of others, boasting that India would be a vast source of wealth to the Company, and to the nation. But these predictions were soon falsified by the event. The surplus of Indian revenue, for the appropria-

tion of which so many wise provisions were passed, soon *Hindustan.* vanished, and in 1797 a deficiency appeared, which continued till 1810. The revenues had, in the mean time, increased from L.8,225,628, their amount in 1797, to about 15½ millions sterling; but, instead of any surplus being remitted from India to Europe, there appears a balance against India, from 1797 to 1807, to the amount of L.1,629,701; whilst, during this period, there was sent from England to India, more than was received, a sum of L.5,691,689. This was the sum, therefore, which England lost during those ten years by its connection with India. From another account also, it appears that, from 1793 to 1816, England remitted of cash to India L.8,824,067 more than was received. (See *East India Annual Accounts laid before Parliament*, p. 19.) In 1811 the revenues began again to exceed the charges, and in the three following years there was a large surplus of nearly three millions sterling in each year. In 1816, 1817, and 1818, this surplus continued to be above two millions annually; and it is stated by Mr Prinsep, in his narrative of the last Indian war, that there was actually accumulated in the different treasuries of the Company, bullion to the amount of eight millions sterling. Here, then, was an opportunity of making a large remittance to the directors in Europe. But of this large accumulation of treasure they received not one shilling. The Indian government was involved in a series of new wars, in the carrying on of which not only was all this wealth expended, but an additional sum of about four and a half millions sterling was borrowed; so that the Indian debt, which in 1814 amounted to about twenty-nine millions sterling, was raised to nearly L.34,775,792, its amount in April 1818. Mr Prinsep, however, in his interesting account of the administration of Marquis Hastings, still confidently held out the hope of a surplus revenue; and he founded his expectations, 1st, on a reduction of expense in consequence of the peace recently concluded; and, 2^{dly}, on a great increase of revenue from the late extension of the Company's territories. But so far from any surplus of revenue being realized, we find the whole produce of the taxes collected throughout the extensive dominions of the Company, amounting to L.22,019,310, regularly swallowed up in the increasing charge; so that, on the seventeen years ending 1830-1831, the annual deficit amounts to L.18,994,036, as will appear from the following table:—

	INDIA.		Home Charges.	Surplus.	Deficit.
	Surplus.	Deficit.			
	£	£	£	£	£
1814-15	1,342,273	.....	1,391,865	.....	49,592
1815-16	276,893	.....	1,402,472	.....	1,125,179
1816-17	955,451	.....	1,390,359	.....	434,908
1817-18	487,489	.....	1,347,052	.....	859,564
1818-19	.....	42,766	1,446,001	.....	1,488,767
1819-20	.....	80,833	1,544,857	.....	1,625,690
1820-21	1,648,798	.....	1,414,210	234,588	.....
1821-22	2,057,051	.....	1,507,773	549,278	.....
1822-23	3,087,960	.....	1,628,153	1,459,807	.....
1823-24	426,387	.....	1,287,560	.....	861,173
1824-25	.....	1,445,487	1,651,077	.....	3,096,564
1825-26	.....	3,039,625	1,817,232	.....	4,856,857
1826-27	71,303	.....	2,429,894	.....	2,358,591
1827-28	.....	1,190,575	2,069,141	.....	3,250,716
1828-29	1,022,130	.....	1,967,405	.....	945,275
1829-30	1,138,238	.....	1,748,740	.....	610,502
1830-31	1,799,633	.....	1,473,565	326,068	.....
				2,569,741	21,563,777
					2,569,741
				Total deficit...	18,994,036

Revenues and Indian Charges (independently of the Home Expenses) of each Presidency, with the Deficit or Surplus in each Year, from 1814-15 to 1832.

	BENGAL.			MADRAS.			BOMBAY.		
	Revenue.	Charge.	Surplus.	Revenue.	Charge.	Surplus.	Revenue.	Charge.	Deficit.
1814	£ 11,237,498	£ 8,876,581	£ 2,360,917	£ 5,322,164	£ 5,189,412	£ 132,752	£ 857,080	£ 1,717,144	£ 860,064
1815	11,415,799	9,487,638	1,928,161	5,106,107	5,261,404	.....	872,046	1,986,444	1,114,398
1816	11,967,259	9,796,974	2,170,285	5,360,220	5,142,553	217,667	895,592	1,946,118	1,050,526
1817	11,769,552	10,281,822	1,487,730	5,381,307	5,535,816	.....	1,392,820	1,956,527	563,707
1818	12,399,475	10,677,015	1,722,460	5,361,432	6,006,420	.....	1,720,537	2,597,776	877,239
1819	12,224,220	10,826,734	1,397,486	5,407,005	5,825,414	.....	2,161,370	3,204,785	1,043,415
1820	13,518,968	10,688,439	2,830,529	5,403,506	5,700,466	.....	2,438,960	3,299,170	860,210
1821	13,361,261	10,356,409	3,004,852	5,557,028	5,500,876	56,152	2,883,042	3,667,332	784,290
1822	14,169,691	10,317,196	3,852,495	5,585,209	5,229,202	356,007	3,372,447	4,275,012	902,567
1823	12,950,308	10,912,710	2,037,598	5,498,764	6,398,856	.....	2,789,550	3,264,509	454,959
1824	13,484,740	12,620,179	864,561	5,460,742	5,789,333	.....	1,785,216	3,305,982	1,520,766
1825	13,121,282	13,793,499	None. ¹	5,714,915	6,056,967	.....	2,262,393	4,032,988	1,770,595
1826	14,767,238	13,405,152	1,362,086	5,981,681	5,634,322	347,359	2,618,549	4,000,552	1,382,003
1827	14,944,713	13,486,879	1,457,834	5,347,838	6,188,127	.....	2,579,905	4,062,566	1,482,661
1828	14,785,860	12,042,607	2,743,253	5,575,049	5,671,496	.....	2,331,802	3,675,984	1,343,582
1829	13,825,280	11,226,226	2,599,054	5,415,587	5,462,566	.....	2,421,443	3,621,976	1,200,533
1830	14,119,914	11,171,167	2,948,747	5,958,260	5,325,840	32,420	2,541,136	3,636,626	1,095,490
1831	14,384,116	11,612,196	2,771,920	5,444,126	4,903,971	540,155	2,495,768	3,250,481	762,633
1832 ²									

¹ Deficit of L. 852,217.

² The year embracing 1832-33 not made up.

Hindustan. The commercial monopoly of the East India Company was granted by William III. in the year 1698, and it was confirmed by 9 and 10 William III. c. 44. The legislative enactments regarding the territorial possessions of the Company commenced in 1767. In that year it was agreed that, in consideration of an annual payment of L.400,000, the territorial possessions should remain in possession of the Company for two years, and afterwards for five years from the 1st of February 1769. There was paid to the public, under these two acts, from 1768 to 1775, the sum of L.2,169,398. In 1773 the affairs of the Company were much embarrassed, and they presented a petition to parliament soliciting a loan for four years, and a sum of L.1,400,000 was accordingly lent; and at this time parliament first assumed the regulation of the Company's affairs. The dividend was restricted to six per cent. till this loan should be repaid, and afterwards to seven per cent. It was enacted that the directors should be elected for four years, six of them, being a fourth part, to vacate their office annually by rotation; the qualification to vote in the court of proprietors to be raised from L.500 to L.1000. A new court of judicature was at the same time established at Calcutta, consisting of a chief justice and three principal judges, appointed by the crown; and a superiority was given to Bengal over the other presidencies; an appropriation was made of the revenues and profits of the Company, and they were required to make half yearly statements of their debts, and of the profit and loss incurred on their trade and revenues. The loan of L.1,400,000 having been discharged, two other acts were passed, by which the territory was continued to the Company for one year. In 1781 an act was passed continuing the territorial revenues and privileges of the Company till the 1st of March 1791, and then to be taken away only on a three years' notice; providing also that the Company should pay annually L.400,000 to the public, besides three fourths of any surplus revenue that might accrue.¹ Under this act the Company paid to the public L.400,000 in satisfaction of all claims up to the 1st March 1781. But of the annual sum of L.400,000 which was afterwards to be paid, the public received only L.300,000; and in 1783 the Company were allowed to borrow L.800,000, and out of this borrowed money to pay a dividend of eight per cent. By the act of 33 Geo. III. c. 52, passed in 1793, the British territories in India, together with the exclusive trade, were continued to the Company for twenty years; and the Company agreed to pay L.500,000 annually, unless prevented by war expenditure. But only two payments were made, of L.250,000 each, under this act, in 1793 and 1794. In 1814 the charter of the Company was renewed for twenty years; the trade to India opened under certain limitations, with the exception of the trade to China, the monopoly of which, with all the territorial revenues, was continued till 20th of April 1834. In 1833 a new act was brought forward by Mr Grant, for the future administration of the vast dominions of Hindustan. The Company, and for the general regulation of their affairs. By this act the commercial privileges of the East India Company were abolished, and the trade to India and to China was thrown open to all British subjects. The government of India was still vested in the directors of the company, in conjunction with the board of control, according to the provisions of Mr Pitt's bill. It was declared lawful for all British subjects to settle in any part of the East India Company's dominions throughout India without any license, merely making known to the chief officer of the customs their names, places of destination, and their business; to hold lands for a term of sixty years, and in perpetuity by a grant from the governor-general; and all classes in Hindustan, of whatever religion, colour, caste, or country, are declared equally eligible to all public offices. The value of the Company's stock is guaranteed to the proprietors at the rate of L.100 for every L.5. 5s. of annual dividend. For this purpose a fund of two millions is set apart, to accumulate at compound interest, until it amount to twelve millions, the price of six millions of stock at ten per cent., and the dividend is in the mean time to be paid out of the territorial revenues. The whole capital of the East India Company, amounting to L.7,780,000, having been in this manner lost, the inhabitants of Hindustan are taxed to make up the loss. For more than forty years a dividend of ten and a half per cent. has been paid upon East India stock, though in the course of this long period not a shilling of profit has ever been made. So far from it, the Company's affairs have been every day sinking deeper into embarrassment, and a pretended dividend has been paid with borrowed money, by which the original value of the stock has been nearly doubled in the market, and at this high value it is to be redeemed at the expense of the Hindus, who, though they had no share in the profits, are thus brought in to bear the loss. It may be doubted, however, whether any other arrangement would have been practicable. The error was in allowing so large a dividend to be paid with borrowed money; and this evil having gone so far, and many proprietors having purchased stock on the faith of the existing dividend, it would have been a bold measure to have at once annihilated the value of the stock to the amount of twelve millions. The reform of judicial proceedings, and the compilation of a uniform code of laws for Hindus and Mahomedans as well as European subjects, a great and important undertaking, forms part of this comprehensive and enlightened plan for the government of India. Owing to the recent extension of the British empire towards the north, it has been found expedient, for the more efficient administration of these distant territories, to erect a fourth presidency and council at Agra, with the same powers as the other presidencies, and subject also to the supreme authority of the president and council of Bengal. The following is the latest statement of the Company's affairs:

Territorial and Political Debts Abroad.

Total debts in India bearing interest.....	L.41,204,416	
Debts in India not bearing interest.....	11,496,162	
Total territorial debts abroad, 1st May 1831.....	L.52,700,578	
Territorial and political debts at home.....	8,497,204	L.61,197,782
Commercial debts abroad, 1st May 1832.....	L.719,499	
At home.....	1,208,995	
		1,928,494
Commercial bonded debt bearing interest.....	L.3,527,437	
Not bearing interest.....	15,417	
		3,542,854
Carry forward.....	L.66,669,130	

¹ On this clause Colonel Munro justly observes, "This is converting India into a rack-rent estate for England."

Hindustan.

Brought forward...L.66,669,130 Hindustan.

Territorial and Political Credits Abroad.

Consisting of cash and bills receivable, &c. at Bengal, Fort George, and Bombay.....	L.9,018,281
Stores in the several departments, 1st May 1831	7,098,683
Debts, including arrears revenue.....	9,268,484
Amount of securities purchased by commission for reduction of Indian debt.....	2,783,624
Bills of exchange.....	L.522,139
From which is deducted on various accounts.....	519,617
	<u>2,522</u>
	L.28,171,594
Exports of military stores, cargoes, bills of exchange drawn on government; bullion, dead stock, buildings in India L.400,000, buildings of colleges at Halesbury, &c.....	1,407,929
	<u>L.29,579,523</u>

Commercial Credits Abroad.

Cash, goods, merchandise at the several presidencies, Cape of Good Hope, China, Canada, Halifax, and debts..... L.1,416,246

At Home.

Value of goods, cargoes, ships, East India House, warehouses, debt due from public cash... ..	20,230,903	
	<u>21,647,149</u>	
		<u>51,226,672</u>
Balance deficient.....		L.15,442,458

The East India Company consists, according to the latest calculation, of 3579 proprietors, who meet in a general court and vote. A proprietor of the Company's stock, provided it has been in his possession for twelve months, to the amount of L.1000, has one vote; of L.3000, two; of L.6000, three; and of L.10,000, four votes; 396 proprietors hold stock under L.500, and are not qualified to vote. The total number of voters is estimated at 2600. The proprietors meet every quarter. Their powers were limited to the election of directors, to the framing of bye-laws, and to the control of salaries or pensions exceeding L.200 a year, or gratuities exceeding L.600. In the court of directors and the board of control is vested the sovereignty of India; they regulate by their supreme authority the policy of the resident government, and the court of proprietors has no power to interfere with their orders.

India is divided into the four presidencies of Bengal, Madras, Bombay, and Agra. The presidency of Bengal is the head of the government, and the president is styled the governor-general. He exercises the executive and legislative powers within his presidency; the regulations which he issues having the force of laws, though subject to the revision of the directors and the board of control at home. Formerly these ordinances were not valid until they were publicly exposed for fourteen days, then registered by the king's supreme court, and afterwards subjected to a further ordeal at home. By the new charter of 1833 these restraints on the powers of the governor-general have been removed, and by his authority in council he can even make laws for the regulation of the supreme courts. The business of the executive is divided among five boards; 1st, that of revenue; 2d, that of customs, salt, opium; 3d, that of trade; 4th, the military; and, 5th, the medical board. There are three boards at Madras, namely, the first and the two last, and one at Bombay. These boards make suggestions, or present drafts of regulations in their respective departments; and all their minutes are laid before the government monthly, and transmitted home for the consideration of the directors and the board of control. The council of the governor-general consists of five members, three of whom are taken from the servants of the Company of three years standing, but the fourth not from the Company's servants; and all are appointed by the directors, subject to the approbation of the king. The commander-in-chief forms the fifth member. In all state questions the governor-general may act without or even against

the advice of his council, on his own responsibility. In virtue of his commission as captain-general, he may head the military operations in any part of India. The chiefs of the other presidencies possess the same authority within their respective districts, but may be controlled in all matters of general policy by the governor-general, who has the power of declaring war and of making peace, and of entering into treaties with foreign states; and who may suspend the governors of the other presidencies, proceed thither, and, assuming the supreme authority, sit as president in their councils.

Each presidency has its separate army, commander-in-chief, and military establishment. But the commander-in-chief of the supreme government has a general authority over the military force in the other presidencies. The total armed force in British India is above 200,000. This force consists, 1st, of the king's infantry and cavalry; 2d, of the East India Company's European engineers, artillery, and infantry; and, 3d, of the Company's native artillery, cavalry, and infantry. The European troops in India amount, according to the latest accounts, to 30,864; the native troops to 181,517, highly distinguished by their valour, good conduct, and discipline. The complement of European officers to each regiment is, one colonel, one lieutenant-colonel, one major, five captains, eight lieutenants, and four cornets or ensigns. Of native officers there is a subahdar and jewadar to each company. But no native can ever attain a rank equal to the youngest European ensign. The number of European officers in India was, by a late return, 5531. The expense of the Anglo-Indian army, at each of the three presidencies of Bengal, Madras, and Bombay, in 1830, was, respectively, L.4,329,537, L.3,216,275, L.1,849,510. The Indian marine is inconsiderable, consisting of one frigate, with ten or twelve smaller vessels, and two armed steamers. The British ecclesiastical establishment in India consists of seventy-six European chaplains, who are under the charge of a diocesan at Calcutta, with L.5000 a year, and three archdeacons at each of the presidencies, with a salary of L.2000 a year. By the new charter of 1833 a bishop is to be stationed at each presidency, with a salary of L.2400. There are also Scottish Presbyterian churches at Calcutta, Bombay, and Madras.

From the preceding view which we have given of the British administration of India, it will be seen that the inhabitants have suffered many serious evils from a foreign yoke; and that the land-tax levied by the East India Com-

Presiden-
cies.Indian ar-
my.Conclu-
sion.

Hindustan. pany is the standing obstacle to improvement. It is this tax which retards the progress of cultivation, and consequently of population and capital; and is the cause of large tracts of wilderness being still found in a country naturally fertile. All the different collectors in India, and amongst others Colonel Munro, are of opinion that, but for this obstacle, population would increase even faster in Hindustan than in America. Those provinces of India, however, such as Bengal, which have been long under the sway of the British, now exhibit, notwithstanding the high assessment, sensible marks of improvement. The ancient order of landholders, the zemindars, as well as the inferior tenants or occupants, have many of them no doubt been crushed under the pressure of taxation, and have mostly disappeared; but in their place, under the protecting influence of the British government, a middle order has arisen, who have acquired wealth by industry. In the great towns commerce has flourished; large capitals have accumulated, and in many cases have been employed in purchasing the forfeited lands of the zemindars. A new race of proprietors has thus arisen, more enterprising and industrious than the great lords to whom they have succeeded; and by their industry and exertions the land has been improved, and cultivation slowly extended over the jungles and wastes of the lower provinces. With the progress of commerce and of wealth, rice, the great staple of the farmer, has risen in price, and at the same time the wages of labour; a sure criterion of the improving condition of the people. In the interior of Bengal and the upper provinces, the towns are improving both in size and in appearance; and the equal protection extended to all classes by the British rulers has diffused throughout India a sense of security never before experienced under the despotic rulers of former times, and far less amidst the massacres, the pillage, and the intestine disorders, which from time immemorial have afflicted India, and more especially during the last twenty years preceding the Pindaree war. These evil days have passed away; India is now freed from the scourge of internal war, by the decided ascendancy of the one great ruling power; and peace, which now reigns over all Hindustan, is of itself so great a blessing, as to compensate in some degree the evils of foreign rule. The European sovereigns of India have committed great errors, first, in discouraging the colonization of the country by Europeans, and, secondly, in the rigorous exclusion of the natives from every place of power, honour, or emolument. In their jealousy of colonization, the East India Company have evinced all that narrow spirit of monopoly by which they would hold possession of the country by any means, however exceptionable. The hereditary aristocracy of India having been ruined by the rigid exactions of the government, the want of their natural influence has been severely felt in all the details of domestic policy. The business of the revenue, the magistracy, and police, fell, as has been shown, into almost irreparable disorder; and these evils were, by all the most experienced servants of the Company, and by the directors at home, ascribed to the degradation and ruin of the ancient gentry and landholders, who had great authority and respect among the people, and who were universally looked up to as the guardians of civil order. On this subject, Mr Stuart, judge in the Benares division, in a report to government, reasons with great force and clearness, and observes, that the extinction of the aristocracy "may be traced throughout the country as one principal source of the disorders which prevail." (*Fifth Report*, p. 574.) These disorders would have been most effectually remedied by a body of Europeans naturalized in the country, who would have filled up the void in society occasioned by the ruin of the zemindars,

and would have diffused amongst the natives the arts, the sciences, the literature, and enlightened morality of Europe; they would have improved the general aspect and condition of Hindu society; and their descendants, familiar with the laws, character, manners, and language of the natives, would have been qualified to act as the rulers and legislators of the country. Owing to the exclusive policy which has been followed, the government of India has been composed of a small body of foreigners, who engross from their rightful owners every part of honour or profit. The standing policy of the Company has been to exclude the natives from every fair object of ambition. Their rise in the army was limited to the command of a platoon of Sepoys; in the civil service to some petty office, alike insignificant in its functions and its pay. A proscription so universal was calculated to produce the most unfavourable effects on the national character. By narrowing the sphere of ambition, we diminish the incentives to active exertion, we take away from mankind the motives which prompt them to cultivate their faculties, we weaken the animating principle of all improvement, we relax the moral tone of society, and thus pave the way for the progress of vice and disorder. All accounts accordingly agree that the state of morals in Hindustan has not been improved under the rule of the English. "The decline of morality," says Lord Moira, in his judicial minute, dated the 2d of October 1815, "is stated to be a subject of reproach against us by all the natives whom birth or education have inspired with concern for the good order or well-being of society." Mr Stuart, whose reports on the state of India abound in the most masterly views of the state of property and manners, expresses this opinion in the strongest terms: "As we proceed," he observes, "these provinces will soon present the singular spectacle of a great empire, the government of which rigidly excludes its subjects from every object of fair ambition, which, in the pursuit, could stimulate men to cultivate their faculties, or, in the possession, enlarge their understandings and elevate their minds." "My speculations," he adds, "may have perhaps misled me, but I am persuaded that very unfavourable effects from these causes may already be traced in the habits of our native subjects; and their long continuance must, I think, infallibly end in reducing the whole population to one ignorant, grovelling, litigious, and profligate herd." Colonel Munro, one of the most distinguished officers in the Company's service, decidedly censures the illiberal policy of exclusion; and describes the natives as more patient and laborious than Europeans, as better accountants, as more efficient men of business; and he expresses his surprise that "men of respectable talents should recommend the abolition of Indian and the substitution of European agency to the greatest possible extent. With our limited number of servants," he observes, "we could not do the work of natives, with ten times the number we could only do it ten times worse."¹ The just and liberal views of Colonel Munro and others have been approved of, and the natives have been for some years admissible to civil offices, and to act as civil and criminal judges; and this tardy justice to the natives may be expected to produce the best effects. They are now summoned to sit in the punctayets (native juries), to try in some places criminal, in others both civil and criminal questions. And this enlightened policy has been still further confirmed by the great and memorable measure introduced into parliament by Mr Grant in 1833, for abolishing the commercial privileges, and regulating other complicated concerns, of the East India Company. The free admission of the natives, of whatever religion or caste, to all offi-

¹ See Copies of several Minutes of Council at the presidencies of Madras, by Sir T. Munro, Mr Græme, Mr Lushington. Judicial Consultation, 3d July 1827.

Hindustan. ces, and of British settlers into any part of India, there to acquire property or land, or to carry on any trade or profession, is calculated to promote the lasting advantage of India, establishing as it does the principles of freedom, not upon the mere arbitrary regulation of the supreme council, which may be recalled, but on the solid authority of a British act of parliament, which no inferior power can disannul.

Under this liberal and comprehensive law, the Magna Charta of Indian freedom, the British merchant may transfer his capital, and his superior intelligence and industry, to the most remote parts of Hindustan; he may engage in trade, in manufactures, or in agriculture; and this free intercourse of India with Britain must in time produce important effects on the character and manners of the people. Hindustan appears, indeed, to be on the eve of a great moral revolution. The spirit of improvement has long slumbered amongst that singular people; and the division of the people into castes, and those superstitions to which they are attached with a blind devotion, are unfavourable to its progress. But the influence of European manners now begins to be seen; and, considering that the Hindus are a conquered people, long bowed under a foreign yoke; that, on the other hand, power, dominion, honour, and promotion, belong to the British; it is no wonder that the prostrate and servile Hindu should be induced gradually to forsake the manners and superstitions, and even the language, of his forefathers, for the enlightened views and purer faith of his victorious preceptors. This great and signal revolution is already begun. The manners, the customs, the language of Britain, are beginning to take root in India. They have been adopted by many natives of distinction, by zemindars, as well as by the rajahs and princes of the country; and from their example they are spreading amongst the other classes. Hindu children of both sexes crowd the British seminaries established at Calcutta; the rising generation resort to the colleges, and are instructed in English literature and science; they frequent the medical and surgical schools; and there is a growing disposition to adopt the free and liberal manners, and all the other improvements, of modern Europe. This moral change, which is already begun, will soon, by the free influx of Europeans, reach the remotest parts of Hindustan. Capital will be introduced, agriculture will be promoted, and improved modes of labour will be adopted. And all these changes will be brought about, not by any violent subversion of existing institutions, but gradually, through the quiet influence of moral causes.

Amongst other sources of improvement in Hindustan, may be reckoned the laudable zeal of the government for the instruction of the people, by the institution of colleges and schools throughout the country, in which are taught all the different branches of literature and science. It was stipulated by the charter in 1814, that a sum of L.10,000 should be annually applied to the purposes of education; which sum has been augmented by the liberality of the government to L.21,884, to L.66,563, and to L.44,330, its amount in 1830. In the Mahomedan College at Cal-

Hindustan. cutta, the pupils are instructed in natural philosophy, theology, law, astronomy, mathematics, geometry, arithmetic, logic, rhetoric, oratory, grammar, in medicine and surgery, and in the English and Arabic languages. There is also a college for the cultivation of Sanscrit and Hindu literature; besides the Anglo-Indian college for instruction in the English languages. Colleges have been established at Delhi and Agra, and primary and elementary schools are dispersed over the whole country. In many cases, the native schools, generally ill conducted, have been improved under the superintendence of the British. In the presidencies of Bombay and Madras numerous schools have been established for the instruction of the natives in all the elementary branches of education; in geography, in mathematics, and in the English language, the knowledge of which is gradually extending amongst the Hindus. And with these institutions for the education of the people is now combined that mighty engine the press, which, though opposed in its first efforts, and rigorously persecuted, has in India, as in all other countries, finally broken down all the restraints of despotism, and achieved its own freedom. It is not above twenty years since one newspaper only was published in Calcutta. In 1833 eight daily newspapers, political and commercial, issued from the Calcutta press; two three times a week, one twice a week, and seven weekly newspapers, some political, others commercial; besides fourteen newspapers in Bengalee or Persian, and monthly, quarterly, and annual publications. At Bombay and Madras political intelligence is dispersed in various journals, some in English, others in the native languages; and throughout the provinces English newspapers are established; whilst at the different courts, at Delhi and at Meerut, the journals are numerous and daily increasing. To those various sources of improvement may be added the missionary labours, which are ardently pursued all over India; in the establishment of schools, in the sending out of preachers, and in the printing and dispersing of the sacred volume and other works in the native languages, on which large sums of money have been expended. Such are the various institutions which are in progress for the civilization of Hindustan, and which are destined ere long to produce important results, not only in that country, but throughout the whole extent of Asia. But those great moral changes which affect the condition of society are in their nature slow and gradual; they cannot be hastened forward, more especially amongst such a people as the Hindus, whose minds are enthralled by the force of their peculiar habits and religion, by immemorial usages, and by the deep-rooted prejudices of ignorance. We cannot expect that long-established habits will be suddenly relinquished, or that fixed impressions will at once yield to the voice of truth. But Great Britain has at last, and in earnest, undertaken the task of instructing her Indian subjects; the foundation is laid; the work of improvement is begun; the seeds of knowledge have been widely dispersed over the congenial soil, and they will assuredly spring up, and in due season yield the desired increase. (F.)

Hingham
||
Hipparchus.

HINGHAM, a town of the county of Norfolk, in the hundred of Forehoe, ninety-six miles from London, situated at the source of the river Yare. The land around is fertile, and there is a market on Thursday. The inhabitants amounted in 1801 to 1203, in 1811 to 1311, in 1821 to 1442, and in 1831 to 1539.

HINNOM, or the *VALLEY OF HINNOM*, in *Ancient Geography*, a place which lay to the south of Jerusalem. It was also called the *Valley of Tophet*, and was remarkable for the cruel and barbarous worship of Moloch, being the place where parents made their children pass through the fire in honour of that idol.

HINZUAN, one of the Comora Islands, situated between Madagascar and the continent of Africa, and otherwise called Anzuame, Anjuan, Juanny, and Johanna.

Hinzuan resembles, according to Sir William Jones's description of it, a vast amphitheatre, of which a general notion may be formed by conceiving a multitude of hills infinitely diversified in figure and magnitude, and thrown together with artless symmetry in all conceivable positions. A series of mountains forms the background. One of these is pointed, about half a mile above the level of the sea, and not more than three miles from the shore; and the whole are richly clothed with fruit trees of exquisite verdure. Beyond this there is another range, partly barren and partly verdant. Nearer the shore there is a vast multitude of cliffs, which push their verdure almost to the water's edge. The rows of palm trees with which it abounds give an enchanting beauty and variety to the scene, and almost appear to have been planted by design. The north side of the island shoots out into two points, which are twenty-six miles distant from each other, with a large bay between them. It is justly considered as a proper place of refreshment for vessels bound to and from the East Indies, yielding limes, lemons, oranges, and many other valuable antiscorbutics.

HIPPARCHUS, the most celebrated astronomer of antiquity, was a native of Nicæa, a city of Bithynia. We have no means of discovering the exact date of his birth or of his death, but we find from Ptolemy that his observations of the heavenly bodies extended from B. C. 162 to 127. His observations were principally taken in the island of Rhodes; but we know nothing of his private history, excepting that he was remarkable for unwearied industry and great love of truth. He seems to have first directed his attention to the rising and setting of stars; and whilst engaged on this subject he composed a commentary on the work of Aratus, and discovered many mistakes, which the latter, or rather Eudoxus, whom he copied, had made in respect to the position of stars. It was not, however, till a much later period that he discovered that the aspect of the heavens had undergone a considerable change since the observations of Eudoxus had been made. His anxiety to arrive at the truth induced him to subject the whole science of astronomy as then known to the strictest examination; and with this view deemed it a matter of the utmost consequence to the success of his ulterior objects, that he should fix with precision the equinoctial and solstitial points, as well as the time which the sun took to pass from one of these points to the other, or, in other words, the exact length of the year. He compared his own observations with those which had been made before his time, and he discovered that the period of 365 days six hours, which had hitherto been considered as the true length of the solar year, was too great by about five minutes. He was the first to perceive that the stars appeared to have a movement parallel to the ecliptic, and he established this doctrine in a work on the retrogradation of the equinoctial points. It was impossible in those early times to calculate with precision the exact quantity of this movement, as he had no observations with which to compare his own except those of

Timocharis and Aristillus, who had lived only a short time before. He imagined, however, that it could not be more than 36" a year, though it is now known that it is in reality 50". This important discovery would have been sufficient to have immortalized his name, but he possesses many other titles to the admiration of posterity. He was the first to discover the means of determining the inequality of the movement of the sun, or what is called the apparent eccentricity of the solar orbit. He observed that the four parts into which the year is divided by the solstices and equinoxes are by no means equal, the sun occupying ninety-four days and a half in passing from the vernal equinox to the summer solstice, and only ninety-two and a half from the same solstice to the autumnal equinox. It was evident, therefore, that the sun remained 187 days in that part of the ecliptic which lies between the equator and the north pole, and only about 178 in the other part. The only way in which he could account for this apparent inequality of the sun's motion, was by supposing that the earth was not placed exactly in the centre of the circular orbit of the sun, and that his distance from the earth is therefore subject to variation. The distance of the earth from the centre of the orbit is called the *eccentricity*; and it produces an equation between the real and apparent motions, which is called the *equation of the centre*. Hipparchus determined the magnitude of this equation in terms of the radius of the ecliptic, and fixed the position of the line of the apsides, or that which joins the two opposite points of the orbit at the greatest and least distance from the earth. With these data he constructed the first tables of the sun which are mentioned in the history of astronomy. With equal industry and acuteness Hipparchus laboured to bring the still more difficult theory of the moon to a more scientific form. By comparing a great number of observations of eclipses recorded by ancient writers with his own, he was enabled to determine more accurately the period of the moon's revolution relatively to the stars, to the sun, to her nodes, and to her apogee. He calculated with remarkable precision, for the time when he lived, the distance of the moon from the earth, as well as the size of the sun and moon.

The appearance of a new star in the heavens induced Hipparchus to undertake the formation of a catalogue of all the stars visible above his horizon, to fix their relative positions, and to mark their configurations, in order that posterity might be able to detect any changes which might take place in the aspect of the heavens. His catalogue contained 1080 stars. He also invented the planisphere, or method of representing the starry firmament on a plane surface, which afforded the means of solving the problems of spherical trigonometry in a manner often more exact and more commodious than the globe itself. He was the first who demonstrated the methods of calculating triangles, whether rectilinear or spherical; and he constructed a table of chords, from which he drew nearly the same advantages as we derive at present from the tables of sines. Geography is also indebted to him for the happy idea of fixing the position of places on the earth by means of their latitudes and longitudes, and he was the first who determined longitude by the eclipses of the moon. His writings have all unfortunately perished, except a commentary on the poem of Aratus, and a work entitled *Asterismi*. They were first published at Florence, 1567, and afterwards by Petavius in his *Uranologium*, with a Latin translation, Paris, 1630. See Delambre, *Histoire de l'Astronomie Ancienne*, tom. i. p. xxi.; Marcoz, *Astronomie solaire d'Hipparque soumise à une critique rigoureuse, et ensuite rendue à sa vérité primordiale*, Paris, 1828. The views of Marcoz are ably controverted by Letronne in the *Journal des Savans*, 1828 and 1829, January; also by Littrow in the *Vienna Jahrbuch*, 1830, January and March.

Hipparchus.

HIPPOCENTAUR (composed of *ἵππος*, horse, and *κένταυρος*, I spur, and *ταύρος*, bull), in *Antiquity*, a fabulous monster, supposed to be half horse and half man. The hippocentaurs seem to have differed from the centaurs in this, that the latter only rode on bullocks, and the former on horses, as the names themselves indicate.

HIPPOCRATES, the greatest physician of antiquity, was born in the island of Cos, in the eightieth Olympiad, and flourished during the Peloponnesian war. He was the first who laid down precepts concerning physic; and, if we may believe the author of the life, which goes under the name of Soranus, he derived his materials from Hercules and Æsculapius. He was first a pupil of his father Heraclides, then of Herodicus, then of Gorgias of Leontium, the orator, and, according to some, of Democritus of Abdera. After being instructed in physic and in the liberal arts, he lost his parents, upon which he left his own country, and practised physic all over Greece, where he was much admired on account of his skill. He was publicly sent for, along with Euryphon, a man superior to him in years, to Perdiccas, king of Macedonia, who was then thought to be consumptive; but Hippocrates, as soon as he arrived, pronounced the disease to be entirely mental, as in truth it proved. Upon the death of his father Alexander, Perdiccas fell in love with Philas, his father's mistress; and this Hippocrates discerned by the great change which her presence always wrought upon him. The cause of his malady being thus ascertained, a cure was soon effected.

Being entreated by the people of Abdera to come and cure Democritus of a supposed madness, he proceeded thither; but, upon his arrival, instead of finding Democritus mad, he discovered that all his fellow-citizens were so, and that Democritus was the only wise man amongst them. From this philosopher he heard much, and learned a great deal of philosophy; a circumstance which has led Cornelius Celsus and some others to imagine that Hippocrates was the disciple of Democritus, though it is probable they never saw each other till this interview, occasioned by the Abderites. Hippocrates also received public invitations to other countries. Thus, when a plague attacked the Illyrians and Pæonians, the kings of those countries begged him to come to their assistance. He did not comply with their request; but learning from the messengers the prevailing direction of the winds, he concluded that the distemper would at length reach Athens; and having foretold what would happen, he applied himself to devise means for mitigating the evil when it should occur. So ardent indeed was his love of Greece, that when his fame had reached Persia, and Artaxerxes entreated him through the Persian governor of the Hellespont to come to him, at the same time promising him great rewards, he refused to go. He also delivered his country from a war which was just ready to break out, by prevailing upon the Thessalians to come to the assistance of his countrymen, a service for which he received the sincere acknowledgments of the Coans. The Athenians also conferred great honours upon him. They admitted him next to Hercules in the Eleusinian ceremonies, conferred on him the freedom of the city, and voted a public maintenance for himself and his family in the Prytæneum or council-house at Athens, where none were maintained at the public charge excepting such as had done public service to the state. He died amongst the Larissæans, at a very advanced age, having, according to some, outlived the usual term of human life, and attained upwards of a hundred years of age.

A complete bibliographical account of the editions, general and partial, of the works of Hippocrates, would occupy many pages; for, independently of the numerous Greek and Latin editions, almost all the modern languages have been enriched with translations of the different treatises of

the Greek physician. The number of special editions of his principal works is prodigious. Thus, there have been more than thirty of the *Protestation*, as many of the book on the *Nature of Man*, and of that on *Airs, Waters, and Places*; about fifty on the *Books of Epidemics*; more than seventy of the *Prognostics*, and upwards of three hundred editions, with almost as many commentaries in all languages, of his *Aphorisms*, "ce chef-d'œuvre de l'esprit humain." The following classification is made on the principle recommended by Erotian, the eldest glossator of Hippocrates, and adopted and improved by Foes: 1. Greek Editions, Venice, 1526, in folio, Aldus and Asulanus; Basil, 1538, in folio, Froben, a more complete and exact edition than the preceding; 2. Greek and Latin Editions, Venice, 1588, in folio, Mercuriali; Frankfort, 1595, 1621, 1624, and 1645, in folio; Geneva, 1657, in two vols. folio; Leyden, 1665, in two vols. 8vo; the Variorum edition, Vienna, 1743-1749, in two vols. folio, Stephen Mack; 3. Latin Editions, Rome, 1525, in folio, Calvo; Rome, 1549, 1610, 1619, in folio; Basil, 1526, in folio; Venice, 1545, in folio, the version of Cornarius; Basil, 1588, in folio; Venice, 1575, in folio, Marinelli; Frankfort, 1596, in 8vo, Foes; Altenburg, 1806, in three vols. 8vo, Pierer, with a learned dissertation on the state of medicine before the time of Hippocrates; 4. Greek and French Edition, Paris, 1811, 1815, in four vols. 12mo; 5. Numerous editions in French and other modern languages.

HIPPOCRENE, in *Ancient Geography*, a fountain of Mount Helicon, on the borders of Bœotia, sacred to the Muses. Some of the poets, as Ovid, make Hippocrene the same with Aganippe.

HIPPODROME, **HIPPODROMUS** (composed of *ἵππος*, horse, and *δρομος*, course), in *Antiquity*, a list or course where chariot and horse races were performed, and horses exercised. The Olympian hippodrome or course was a space of ground of six hundred paces in length, surrounded with a wall, near the city Elis, on the banks of the river Alpheus. It was uneven, and in some degree irregular, on account of the situation; in one part there was a hill of a moderate height, and the circuit was adorned with temples, altars, and other embellishments. Constantinople had a famous hippodrome, which was begun by Alexander Severus, and finished by Constantine. This circus, called by the Turks *Atmeidan*, is four hundred paces in length, and above a hundred paces in breadth. At the entrance of the hippodrome there is a pyramidal monolith obelisk of granite, about fifty feet in height, terminating in a point, and charged with hieroglyphics. The Greek and Latin inscriptions on its base show that it was erected by Theodosius; the machines which were employed to raise it are represented on it in basso-relievo.

HIPPOLYTE, St, a city of the arrondissement of St Vigan, in the department of the Gard, in France, situated on the river Bidourle, at the foot of the Cevennes, containing 650 houses and 5479 inhabitants, who carry on many tanneries, and considerable manufactures of silk, woollen, and cotton goods.

HIPPOLYTE, St, a town of the arrondissement of Colmar, in the department of the Upper Rhine, in France, on the river Eckenbach. It contains 500 houses, and 1994 inhabitants, some of whom dig good coals in the vicinity.

HIPPOLYTUS, a son of Theseus and Hippolyte, and celebrated in fabulous history for his virtue and his misfortunes. His stepmother Phædra fell in love with him, and when he refused to pollute his father's bed, she accused him to Theseus of offering violence to her person. Her accusation was readily believed, and Theseus entreated Neptune to punish the incontinence of his son. Hippolytus fled from the resentment of his father; and as he

Hippocenta-
ur
|
Hippo-
crates.

Hippo-
crene
|
Hippoly-
tus

Hippo-
manes
||
Hire.

pursued his way along the sea shore, his horses were so frightened at the noise of sea calves, which Neptune had purposely sent there, that they ran amongst the rocks, in consequence of which his chariot was broken and his body torn in pieces. Temples were raised to his memory, particularly at Træzen, where he received divine honours. According to some accounts, Diana restored Hippolytus to life.

HIPPOMANES, a sort of poison, famous amongst the ancients as an ingredient in love-charms. The word is Greek, *ἵππομανης*, composed of *ἵππος*, a horse, and *μανία*, fury or madness. At the end of Bayle's dictionary there is a very learned dissertation on the hippomanes, and all its virtues, both real and pretended.

HIPPONAX, a Greek poet of Ephesus, son of Pythes and Protis (Suid.), who seems to have flourished in the times of Cræsus and Cyrus, B. C. 546 (Marm. Arund.), which agrees sufficiently with the statement of Pliny, that he lived about the sixtieth Olympiad (B. C. 540). He was thus about half a century subsequent to Archilochus, to whose history that of Hipponax bears a strong resemblance. Hated by the tyrants of his country, Athenagoras and Comas, he was obliged to fly, and proceeded to take up his residence at Clazomenæ, another city of Ionia, where, according to some, he died of hunger and want. In the history of poetry he is celebrated as the inventor of a species of iambic verse, which is called choliambi, because the line is imperfect. It is said that we are indebted for its invention to the circumstance of his dispute with two sculptors of Ephesus, Bupalus and Anthermus, who had exposed the poet to the ridicule of his countrymen by a hideous and grotesque representation of him. The poet took ample revenge on the sculptors by a lampoon of so cutting a character that they are said to have hanged themselves. (Plin. xxxvi. 5; Ælian. V. H. x. 6; Hor. Epod. vi. 11; Callimach. Fragm. xc.) The quality for which he was most distinguished was bitterness; and, in allusion to this, it is said that his grave was strewn with thorn bushes instead of vine branches and ivy. (Alcæus Messen. Anthol. Palat. vii. 536.) Besides the choliambi, he wrote also poetry in regular iambic measure. Little of the poetry of Hipponax has been preserved; only a few lines quoted by scholiasts and grammarians have been transmitted to us, but these have been carefully collected by Welcher, *Hipponactis et Ananii Iambographorum Fragmenta*, Göttingen, 1817.

HIPPOPODES, **HIPPOPEDES**, or *Hippopodia* (composed of *ἵππος*, horse, and *πούς*, foot), in *Ancient Geography*, an appellation given to a certain people on the shores of the Scythian Sea, who were supposed to have had horses' feet. The hippopodes are mentioned by Dionysius (*Geogr.* v. 310.), Mela (lib. iii. cap. 6), Pliny (lib. iv. cap. 13), and St Augustin (*De Civit.* lib. xvi. cap. 8). But it is conjectured that they received this appellation on account of their swiftness. Pennant supposes them to have been the inhabitants of the Bothnian Gulf, and that they were the same people as the *Finni Lignipedes* of Olaus. They wore snow-shoes, which, he thinks, might fairly give the idea of their being, like horses, hoofed and shod.

HIPPOPOTAMUS, the RIVER-HORSE. See **MAMMALIA**.

HIRCUS, in *Astronomy*, a fixed star of the first magnitude, the same with Capella.

HIRE, **PHILIP DE LA**, one of the most laborious and most useful of the French geometricians, was born at Paris in the year 1640. His father, who was painter to the king, designed to bring up his son to the same profession, and with this view taught him drawing and such parts of the mathematics as are intimately connected with it. At the age of twenty he visited Italy to enlarge his knowledge of his favourite art, and resided in that country about four years.

But the study of the mathematics, which he continued to prosecute on his return to his native city, afterwards engaged his whole attention; and the publication of some works having procured him a high reputation, he was chosen a member of the Academy of Sciences in the year 1678. When the minister Colbert conceived the design of constructing a better map of France than any at that time to be met with, Lahire was nominated, in conjunction with Picard, to make the necessary observations; and this engaged his attention for some years in the different provinces. In the year 1683 he was employed in continuing the meridian line which had been commenced by Picard in 1669. He continued it from Paris towards the north, whilst Cassini carried it on towards the south; but on the death of Colbert, which happened the same year, the work was discontinued. He was afterwards employed, in conjunction with other eminent philosophers, in taking the necessary levels for the grand aqueducts about to be constructed by Louis XIV. The works published by Lahire are very numerous; and as he was professor of the Royal College and Academy of Architecture, he must have been constantly employed. He had the circumspection and prudence of an Italian, which made him appear reserved in the estimation of his versatile countrymen, yet he was regarded by all as an honest and disinterested man. Lahire died in the year 1718, at the advanced age of seventy-eight. His principal works are, 1. *Nouvelle Méthode de Géometrie pour les Sections des Superficies Coniques et Cylindriques*, Paris, 1673, in 4to; 2. *De Cycloïde Opusculum*, ibid. 1676, in 4to; 3. *Nouveaux Eléments des Sections Coniques*, les Lieux Géométriques, la construction ou affection des Equations, ibid. 1679, in 12mo; 4. *La Gnomonique, ou l'art de tracer des cadrans*, ibid. 1682, in 12mo; 5. *Sectiones Conicæ*, in ix. libros distributæ, ibid. 1685, in folio; 6. *Tabulæ Astronomicæ*, Ludovici Magni jussu et munificentia exaratæ, ibid. 1702, in 4to; 7. *L'Ecole des Arpenteurs, avec un Abrégé du Nivellement*, Paris, 1689, in 8vo, reprinted in 1692 and in 1728; 8. *Traité de Mécanique*, où l'on explique tout ce qui est nécessaire dans la pratique des Arts, ibid. 1675, in 12mo; 9. A great number of *Mémoires*, in different journals, and in the Collection of the Academy. Lahire was besides the editor of the *Traité du Nivellement* by Picard; of the *Traité du Mouvement des Eaux* by Mariotte, and joint editor with Boivin and Thévenot of the *Veteres Mathematici Græc. et Latin.* 1693, in folio.

HIRSCHBERG, a city, the capital of a circle of the same name, in the Prussian province of Silesia. It stands at the influx of the Zachen into the river Baber. It is well built and fortified, and contains four Catholic churches and one Lutheran, 944 houses, and 6458 inhabitants. It is the great market-place for the sale of the linen cloth of Silesia. The city has declined much in prosperity from the falling off of that branch of industry, which has been encroached on by cotton goods. Long. 15. 36. 35. E. Lat. 50. 54. 39. N.

HIRTIUS, **AULUS**, a noble Roman who attended on Cæsar in his wars against the Gauls, and, when he returned to Rome, became the devoted friend of Cicero. He accompanied him to Tusculum, where he studied the art of declamation under that accomplished orator (Cic. *Fam.* vii. 33); and when Cæsar returned from his successful expedition against his enemies in Africa, he was employed by Cicero to make his peace with the conqueror. Hirtius continued a firm friend to Cæsar, and on his death became an equally determined opponent of the ambitious views of Antony. He was elected consul B. C. 43, with Pansa, and, after his recovery from a severe illness, proceeded with his colleague to relieve Brutus, who was besieged in Mutina by Antony. They gained the battle, and put Antony to flight; but Hirtius fell in his attack on the camp (Phil.

Hirsch-
berg
||
Hirtius.

Hispania vii. v.; *Fam.* x. 33; *Liv. Ep.* 119). He is supposed by some to have been the author of the eighth book of Cæsar's Commentaries, and also of the Alexandrine, African, and Spanish wars; though the truth of this statement was doubted even in the age of Suetonius.

History.

HISPANIA, called *Hesperia Ultima*, as being the westernmost part of Europe, and also *Iberia*, from the river Iberus. The name *Hispania* is of Phœnician origin, the Phœnicians, who settled several colonies on the coast, calling it *Spanjak*, from the great number of rabbits in the country. It has the sea on every side, except on that next to Gaul, from which it is separated by the Pyrenees. The Romans at first divided it into the Farther and Hither Spain, which were governed by two prætors. In that state it continued till the time of Augustus, who divided Farther Spain into Bætica, which he left to be governed by a proconsul, and into Lusitania, which he added to his own provinces; calling Hither Spain *Tarraconensis*. Hispania was anciently celebrated for its fertility. The people were of a warlike turn; and their bodies being formed for hardships and labour, they preferred war to peace, and were remarkably prodigal of life.

HISPANIOLA, called also **ST DOMINGO**. See **ST DOMINGO**.

HISSAR FEROZEH, a large district of Hindustan, in the province of Delhi, situated between the 28th and 30th degrees of north latitude, on the western side of the river Jumna. The country is fertile, but labours under a scarcity of water, which detracts from its fertility. It is only watered by one small stream, namely, the Sursutty. In

order to supply the means of irrigation, one of the Afghan emperors, who lived in the fourteenth century, caused two canals to be cut, one from the Sutledge and the other from the Jumna, both of which joined at the city of Hissar, whence they are supposed to have been divided into a number of branches, so that the water was nearly all distributed over the lands, and the remainder fell into a lake called Bhedar. Under the influence of this extensive irrigation the country became fertile, and yielded two abundant crops in the year; and, from this circumstance, a part of it received the name of Hurriana, or the verdant mead. All these great works are now ruined; but the country still produces horses, camels, and cattle. The inhabitants are chiefly Jauts, with the exception of a few Rajpoots; there are also villages of Rajpoots who have embraced the Mahomedan religion. This district imports matchlocks, swords, coarse white cloth, salt, sugar, and a small quantity of rice and spices. The exports are horses, camels, bullocks, and ghee. The chief towns are Hissar, Hansy, and Ferozeh. During the prosperity of the Mogul government, this district was considered the personal estate of the heir apparent to the throne. It is now parcelled out amongst a number of native chiefs. The town of Hissar is the capital of the district. It was built by Sultan Feroz, who gave previous directions for the digging of the two canals above mentioned; after which he laid the foundations of the town and fortress, which he built of stone brought from the neighbouring hills of Nosa, and was completed in less than three years. Long. 75. 53. E. Lat. 28. 41. N.

Hissar Ferozeh History.

HISTORY.

HISTORY, in general, signifies an account of the remarkable events which have happened in the world, arranged in the order in which they actually occurred, together with an explanation of the causes to which they were owing, and of the different effects they have produced as far as can be discovered. The word is Greek, *ἱστορία*, and literally denotes a search of curious things, or a desire of knowing, or even a rehearsal of things we have seen, being formed from a word which properly signifies to know a thing by having seen it. But the idea now attached to the word is much more extensive, and it is applied to the knowledge of things derived from the report of others. Its origin is from the verb *ἵστωμι*, *I know*; and hence it is that, amongst the ancients, several of their great men were called *polyhistores*, or persons of various and general knowledge. Sometimes, however, the word History is used to signify a description of things, as well as an account of facts. Thus Theophrastus calls the work in which he has treated of the nature and properties of plants, an History of Plants; we have also a treatise of Aristotle, entitled an History of Animals; and to this day the descriptions of plants, animals, and minerals, are called by the general name of Natural History.

But that which chiefly merits the name of history, and which is here considered as such, is an account of the principal transactions of mankind since the beginning of the world; and this is naturally divided into two parts, *civil* and *ecclesiastical*. The first contains the history of mankind in their various relations to one another, and of their actions, for their own benefit, or that of others, in common life; the second considers them as acting, or pretending to act, in obedience to that which they believe to be the will of the Supreme Being. Civil history, therefore, includes an account of all the different states which have existed in the world, and likewise of those men who in different ages have most eminently distinguished themselves either for good

or evil actions. This last portion of civil history is usually termed Biography.

I. CIVIL HISTORY.

History, though apparently incapable of any natural division, will yet be found, on a nearer inspection, to resolve itself into the following periods: 1. The creation of man; 2. The deluge; 3. The commencement of profane history, when the fabulous relations of heroes and demigods were expelled from historical narratives, and men began to relate facts with some regard to truth and credibility; 4. The conquest of Babylon by Cyrus, and the destruction of the Babylonian empire; 5. The reign of Alexander the Great, and the overthrow of the Persian empire; 6. The destruction of Carthage by the Romans, when the latter had no longer any rival capable of opposing their designs; 7. The reign of the Emperor Trajan, when the Roman empire reached its utmost limits; 8. The division of the empire under Constantine; 9. The destruction of the western empire by the Heruli, and the settlement of the different European nations; 10. The rise of Mahomed, and the conquests of the Saracens and Turks; 11. The Crusades; and, lastly, all the space intervening between that time and the present.

Historians and chronologers are not agreed as to the First period of years which have elapsed since the creation of the world. The compilers of the *Universal History* determine it to have taken place 4305 years before Christ, so that, according to them, the world is now (1835) in the 6140th year of its age. Others think it was created only 4000 years before Christ, so that it has not yet attained its 6000th year. Be this as it may, however, the account of the creation rests wholly on the truth of the Mosaic history; and this we must of necessity admit, because we can find no other which does not either abound in the grossest

History. absurdities, or involve us in absolute darkness. The Chinese and Egyptian pretensions to antiquity are too absurd and ridiculous to require serious confutation. Some historians and philosophers are inclined to discredit the Mosaic account, from the appearances of volcanoes, and other natural phenomena, exhibited in the internal structure and constitution of the earth. But their objections are by no means sufficient to invalidate the authority of the sacred writings; and their own systems are in fact liable to insuperable objections. It is therefore reasonable to adopt as true the Mosaic account of the creation. But an historian is under an absolute necessity of doing so, because, without it, he is destitute of any standard or scale by which he can reduce the chronology of different nations to any agreement; indeed, without receiving this account as true, it would be in a manner impossible at this day to write a general history of the world.

The transactions during the first period, that is, from the creation to the deluge, are very imperfectly known, nothing being recorded of them but what is to be found in the first six chapters of Genesis. In general, however, we learn that men were not at that time in a savage state. They had made some progress in the arts, invented music, and found out the method of working metals. They seem also to have lived in one vast community, without any of those divisions into different nations which have since taken place, and which is supposed to have proceeded from the confusion of languages. The most material part of their history, however, is, that having once begun to transgress the divine commands, they proceeded to greater and greater degrees of wickedness, till at last the Deity thought proper to overwhelm the earth with a deluge, which destroyed the whole human race except eight persons, namely, Noah and his family. This terrible catastrophe happened, according to the Hebrew copy of the Bible, 1656 years after the creation; according to the Samaritan copy, 1307. For the different conjectures concerning the natural causes of the flood, see the article *DELUGE*.

Second period. For the history of the second period, that of the deluge itself, we must also have recourse to the Scriptures. We now find the human race reduced to eight persons, possessed of nothing but what they had saved in the ark, whilst the earth, desolated by the flood, had to be re-stocked with animals from those which had been preserved along with the eight persons who had escaped the general destruction. In what country this original settlement was effected, we are not informed. The ark is supposed to have rested on Mount Ararat, in Armenia; but it is impossible to ascertain whether Noah and his sons made any stay in the neighbourhood of that mountain. It appears, however, that some time afterwards, the whole or the greater part of the human race were assembled in Babylonia, where they engaged in building a high tower, as a place of refuge in the event of the recurrence of another deluge. This, however, gave offence to the Deity, who punished them by confounding their language; and hence originated the division of mankind into different nations.

According to a common opinion, Noah, when dying, left the whole world to his sons, giving Asia to Shem, Africa to Ham, and Europe to Japhet. But this notion or tradition receives not the least sanction from Scripture. It is believed, however, that Gomer the son of Japhet was the father of the Gomerians or Celts, or, in other words, of all the barbarous nations who under various names inhabited the northern parts of Europe; that from Magog, Meshech, and Tubal, three of Gomer's brethren, proceeded the Scythians, Sarmatians, Tartars, and Moguls; and that from the three other sons of Japhet, Madai, Javan, and Tiras, sprung the Medes, the Ionians, the Greeks, and the Thracians. The children of Shem were Elam, Ashur, Arphaxad, Lud, and Aram. The first settled in Persia,

History. where he became the father of that mighty nation; the descendants of Ashur peopled Assyria or Kurdistan; Arphaxad settled in Chaldaea; Lud is supposed by Josephus to have taken up his residence in Lydia, though this is disputed; and Aram is thought to have settled in Mesopotamia and Syria. The children of Ham were Cush, Mizraim, Phut, and Canaan. The first is supposed to have remained in Babylonia, and to have been king of the south-eastern parts of it, afterwards called Khuzistan. His descendants are believed to have removed into the eastern parts of Arabia, from which by degrees they migrated into the corresponding parts of Africa. The second peopled Egypt, Æthiopia, Cyrenaica, Libya, and the other northern parts of the same continent. The place where Phut settled is not known; but Canaan is universally allowed to have settled in Phœnicia, and to have founded those nations who inhabited Judæa, and were afterwards exterminated by the Jews.

Almost all the countries of the eastern continent being thus furnished with inhabitants, it is probable that for many years few or no quarrels would arise between different nations. The paucity of their numbers, their distance from one another, and their diversity of language, would operate as an obstacle to intercommunication. Hence, according to the different circumstances in which the various tribes were placed, some would be more civilized and others more barbarous. In this interval also the different nations probably acquired different characters, which they afterwards retained, and manifested on all occasions; hence the propensity of some nations to monarchy, as the Asiatics, and the enthusiastic desire of the Greeks for liberty and republicanism.

The commencement of monarchical government dates from a very early period, Nimrod the son of Cush having found means to make himself king of Babylonia. In a short time Ashur, having emigrated from the new kingdom, built Nineveh, afterwards capital of the Assyrian empire, and two other cities, called Rezen and Rohoboth, as to the situation of which we are in a state of profound ignorance. Whether Ashur at this time set up as an independent king, or whether he held these cities as vassal to Nimrod, is unknown. It is probable, however, that about the same time various kingdoms were founded in different parts of the world; and these were great or small according to circumstances. The Scripture mentions the kings of Egypt, Gerar, Sodom, and Gomorrha, in the time of Abraham; and we may reasonably suppose that these kings reigned over nations which had existed for some time before.

The first considerable revolution we read of is the migration of the Israelites out of Egypt, and their establishment in the land of Canaan. For the history of these transactions we must refer to the Old Testament, where the reader will find that it was attended with a terrible catastrophe to the Egyptians, and with the utter extermination of some nations, the descendants of Ham, who inhabited Judæa. How far the overthrow of Pharaoh in the Red Sea affected the Egyptian nation cannot easily be determined; and in fact it seems exceedingly difficult to account for the total silence of their records concerning so remarkable an event, as well as for the general obscurity and uncertainty in which the early history of Egypt is involved. The settlement of the Jews in the promised land of Canaan is supposed to have happened about 1491 before Christ.

For nearly two centuries after this period, we find no accounts of any other nation than those mentioned in Scripture. About 1280 before Christ, the Greeks began to make other nations feel the effects of that enterprising and martial spirit for which they were so remarkable, and which they had undoubtedly exercised upon one another

History. long before. Their first enterprise was an invasion of Colchis, now Mingrelia, for the sake of the golden fleece. Whatever was the nature of this expedition, they appear to have succeeded in it; and it is likewise probable, that it was this specimen of the riches of Asia which ever afterwards inclined them so much to Asiatic expeditions. All this time we are totally in the dark concerning the state of Asia and Africa, excepting in as far as can be conjectured from Scripture.

About 1184 years before Christ, the Greeks again distinguished themselves by their expedition against Troy, a city of Phrygia Minor, which they plundered and burned, massacring the inhabitants with the most unrelenting cruelty. Æneas, a Trojan prince, escaped with some followers into Italy, where he is supposed to have become indirectly founder of the Roman empire. At this time Greece was divided into a number of small principalities, most of which seem to have been in subjection to Agamemnon king of Mycenæ. In the reign of Atreus, the father of this Agamemnon, the Heraclidæ, or descendants of Hercules, who had been formerly banished by Eurystheus, were again obliged to leave this country. Under their champion Hyllus they claimed the kingdom of Mycenæ as their right, pretending that it belonged to their great ancestor Hercules, who was unjustly deprived of it by Eurystheus. The controversy was decided by single combat; and Hyllus being killed, they departed, as had been before agreed upon, under a promise of not making any attempt to return for fifty years. About the epoch of the Trojan war, the Lydians, Mysians, and some other nations of Asia Minor, are first mentioned in history. The names of the Greek states mentioned during this uncertain period are, Sicyon, Leleg, Messina, Athens, Crete, Argos, Sparta, Pelasgia, Thessaly, Attica, Phocis, Locris, Ozela, Corinth, Eleusina, Elis, Pilus, Arcadia, Ægina, Ithaca, Cephalonia, Phthia, Phocidia, Ephyra, Æolia, Calista, Thebes, Ætolia, Doloppa, Cechalia, Mycenæ, Eubœa, Mynia, Doris, Phera, Iola, Trachina, Thresprotia, Myrmidonia, Salamine, Scyros, Hyperia or Melite, the Vulcanian isles, Megara, Epirus, Achaia, and isles of the Ægean Sea. Concerning many of these we know nothing besides their names; and the most remarkable particulars concerning the others may be found under these respective heads.

About 1048 before Christ, the kingdom of Judæa under David approached its utmost extent of power. In its most flourishing condition, however, it was never remarkable for the largeness of its territory. In this respect it scarcely exceeded the kingdom of Scotland; though, according to the accounts given in Scripture, the magnificence of Solomon was superior to that of the most potent monarchs on earth. This extraordinary wealth was owing partly to the spoils amassed by David in his conquests over his various enemies, and partly to the commerce with the East Indies which Solomon had established. Of this commerce he owed his share to the friendship of Hiram king of Tyre, a city of Phœnicia, the inhabitants of which were then the most famed for commerce and skill in maritime affairs of any in the world.

After the death of Solomon, which happened about 975 before Christ, the Jewish empire began to decline; and soon afterwards many powerful states arose in different parts of the world. The disposition of mankind in general seems now to have taken a new turn, not easily to be accounted for. In former times, whatever wars might occur between neighbouring nations, we have no account of any extensive empire in the world, or of any prince undertaking to reduce distant nations under subjection. The empire of Egypt indeed is said to have been of great extent, even before the days of Sesostrius, who was also a great conqueror. Of the remote history of this country,

however, our knowledge is so imperfect, that scarcely any thing certain, or even probable, can be concluded from it. But now, as it were all at once, we find almost every nation aiming at universal monarchy, and refusing to set any bounds whatever to its ambition. The first shock given to Jewish greatness was the division of the kingdom, through the imprudence of Rehoboam. This rendered it more easily a prey to Shishak, king of Egypt, who five years afterwards came and pillaged Jerusalem, and all the fortified cities of the kingdom of Judah. The commerce to the East Indies was now discontinued, and consequently the sources of wealth were in a great measure cut off; and this, added to the perpetual wars between the kings of Israel and Judah, contributed to that remarkable and speedy decline which now took place in Jewish affairs.

This Shishak, who undertook the expedition against Jerusalem, recorded in Scripture, is now known to be identical with the Scheshonk mentioned on the Egyptian monuments. His infantry is described as an innumerable host, composed of different African nations; and his cavalry is stated at sixty thousand, with twelve hundred chariots. These numbers are most probably exaggerated, and all that we can infer from them is, that the invading host was too numerous to be resisted by any force which could be brought against it. We may also observe, that the policy of the elder Pharaohs seems to have differed entirely from that pursued by their successors. In the earlier ages of the monarchy, the sovereigns of Egypt, animated by a spirit of conquest, sought to extend their dominions by the power of the sword, and, with this view, undertook distant expeditions. But experience at length convinced them of the extreme hazards incident to a system of aggression on the part of a country which, from its position and configuration, was peculiarly open to attack; reverses taught wisdom even to those who are generally the last to profit by the severe lessons of adversity; and a change of system ensued. It was felt that an advanced state of civilisation, surrounded on all sides by barbarism and ferocity, could only maintain itself by concentrating its means, and following a system strictly defensive; that the policy of nations must be accommodated partly to their actual position, and partly to the relations in which they stand to those by whom they are encompassed; and that prudence may long preserve what temerity would speedily overthrow. Hence the aggressive policy of the elder Pharaohs gradually merged into that Chinese system of conservation and exclusion which characterised the government of Egypt at the time when the early Greek writers first became acquainted with the country, and which, from not attending to the change we have alluded to, the latter have described as if it had always prevailed. Shishak or Scheshonk was amongst the last of the Egyptian princes who attempted foreign conquests, or conducted expeditions against the neighbouring nations.

But though the Jews obtained a temporary deliverance from this invader, they were soon afterwards attacked by new enemies. In 941 before Christ, Zerah, an Ethiopian, invaded Judæa with an army, it is said, of a million of infantry and three hundred chariots; but he was defeated with great slaughter by Asa king of Judah, who engaged him with an army of more than half a million of men. About this time also the Syrians, who had grown a considerable people, showed themselves bitter enemies to the kings both of Israel and of Judah, aiming, in fact, at the conquest of both nations. Their kingdom commenced in the days of David, under Hadadezer, whose capital was Zobah, and who probably was at last obliged to become a tributary of David, after having been defeated by him in several engagements. Before the death of David, however, Rezon, who had rebelled against Hadadezer, having found means to make himself master of Damascus, erect-

History. ed a new kingdom, which soon became powerful. The Syrian princes being thus in the neighbourhood of the rival states of Israel and Judah, whose capitals were Samaria and Jerusalem, found it an easy matter to weaken both, by pretending to assist the one against the other; but a detail of the transactions between the Jews and Syrians is to be found in the Old Testament, to which therefore the reader is referred. In 740 before Christ, however, the Syrian empire was totally destroyed by Tiglath-pileser, king of Assyria; as was also the kingdom of Samaria by Shalmaneser his successor, about twenty years thereafter. The people were either massacred or carried captive into Media, Persia, and the countries around the Caspian Sea.

Whilst the nations of the East were thus destroying each other, the foundations of formidable empires were laid in the West. In Africa, Carthage was founded by a Tyrian colony, about 869 before Christ, according to those who ascribe the highest antiquity to that city; and in Europe also a considerable revolution took place about 900 before Christ. The Heraclidæ, who had been expelled from Greece by Atreus, the father of Agamemnon, after several unsuccessful attempts, at length conquered the whole Peloponnesus. From this time the Grecian states became more civilized, and their history is less obscure. The institution, or rather the revival and continuance, of the Olympic games, in 776 before Christ, also greatly facilitated the writing, not only of their own history, but of that of other nations; for as each Olympiad consisted of four years, the chronology of every important event became fixed by referring it to these periods or divisions of time. In 748 before Christ, or the last year of the seventh Olympiad, the foundations of the city of Rome were laid by Romulus; and, forty-three years afterwards, the Spartan state was new-modelled, and received from Lycurgus those laws by means of which it afterwards arrived at such a pitch of splendour.

Third period.

With the beginning of the 28th Olympiad, or 568 before Christ, commences the third general period above mentioned, when profane history becomes somewhat more clear, and the relations of different nations may be depended upon with some degree of certainty. The general state of the world was then as follows. At this period, the northern parts of Europe were either thinly inhabited, or filled with unknown and barbarous nations, the ancestors of those who afterwards destroyed the Roman empire. France and Spain were inhabited by the Gomerians or Celts. Italy was divided into a number of petty states, consisting partly of Gaulish and partly of Grecian colonies, amongst whom the Romans had already become formidable. The latter were governed by their king Servius Tullius; had increased their city by the demolition of Alba Longa, and the removal of its inhabitants to Rome; and had enlarged their dominions by several cities taken from their neighbours. Greece was also divided into a number of small states, amongst which the Athenians and Spartans, the most remarkable, were rivals. The former had, about 599 before Christ, received an excellent system of laws from Solon, and were enriching themselves by navigation and commerce. The latter were become formidable by the martial institutions of Lycurgus, and, having conquered Messenia, and added its territory to their own, were justly esteemed the most powerful people in Greece. The other states of most consideration were Corinth, Thebes, Argos, and Arcadia. In Asia great revolutions had taken place. The ancient kingdom of Assyria was destroyed by the Medes and Babylonians, its capital city Nineveh was utterly ruined, and the greater part of its inhabitants were carried to Babylon. Nay, the very materials of which it was built were carried off, to adorn and give strength to that stately metropolis,

History. which was then undoubtedly the first city in the world. By Nebuchadnezzar, who now sat on the throne of Babylon, the kingdom of Judæa was totally overthrown in 587 before Christ. Three years before this he had taken and razed the city of Tyre, and overrun all the kingdom of Egypt. He is even said by Josephus to have conquered Spain, and reigned there nine years, after which he abandoned it to the Carthaginians; but this seems by no means probable. The extent of the Babylonian empire is not certainly known. But, from what is recorded of it, we may conclude that it was not at all inferior in magnitude to any that had ever existed; and the Scripture informs us that it was superior in wealth to any of the succeeding ones. We know that it comprehended Phœnicia, Palestine, Syria, Babylonia, Media, and Persia, and not improbably India; and, from a consideration of this vast extent of territory, and the riches with which every one of these countries abounded, we may form some idea of the wealth and power of this monarch. When we consider also, that the whole strength of this mighty empire was employed in beautifying the metropolis, we cannot consider the wonders of that city, as related by Herodotus, as at all incredible. As to what passed about this time in the republic of Carthage we are left quite in the dark; there being a chasm in its history of not less than three hundred years.

The fourth general period of history, namely, from the end of the fabulous times to the conquest of Babylon by Cyrus, is very short, including no more than thirty-one years. This sudden revolution was occasioned by the misconduct of Evilmerodach, Nebuchadnezzar's son, even in his father's life-time. For having, in a great hunting match on occasion of his marriage, entered the country of the Medes, and some of his troops coming up at the same time to relieve the garrisons in those places, he joined them to those already with him, and without the least provocation began to plunder and lay waste the neighbouring country. This produced an immediate revolt, which quickly extended over all Media and Persia. The Medes, headed by Astyages, and his son Cyaxares, drove back Evilmerodach and his party with great slaughter; nor does it appear that they were afterwards reduced even by Nebuchadnezzar himself. The new empire continued daily to gather strength; and at last Cyrus, grandson to Astyages, a prince of great prudence and valour, being appointed generalissimo of the Median and Persian forces, took Babylon itself in the year 538 before Christ.

During this period the Romans increased in power under the wise administration of their king Servius Tullius, who, though a pacific prince, rendered his people more formidable by a peace of twenty years than his predecessors had done by all their victories. The Greeks, even at this early period, began to interfere with the Persians, on account of the Ionians, or Grecian colonies in Asia Minor. These had been subdued by Cræsus king of Lydia about the year 562, the time of Nebuchadnezzar's death. Whether the Lydians had been subdued by the Babylonian monarch or not, cannot now be ascertained, though it is very probable that they were either in subjection to him, or greatly awed by his power, as before his death nothing considerable was undertaken by them. It is indeed probable, that during the insanity of Nebuchadnezzar, spoken of by Daniel, the affairs of his kingdom must have fallen into confusion; and that many of those princes whom he had formerly retained in subjection must have set up for themselves. Certain it is, however, that if the Babylonians did not regard Cræsus as their subject, they looked upon him as a faithful ally; inasmuch that they celebrated an annual feast in commemoration of a victory obtained by him over the Scythians. After the death of Nebuchadnezzar, Cræsus subdued many nations in Asia

History. Minor, and amongst these the Ionians, as already related. They were, however, greatly attached to his government; for though they paid tribute, and were obliged to furnish some forces in time of war, they were yet free from all kinds of oppression. When Cyrus therefore was proceeding in his conquests of different parts of the Babylonian empire, before he proceeded to attack the capital, the Ionians refused to submit to him, though he offered them very advantageous terms. But soon afterwards Cræsus himself being defeated and taken prisoner, the Ionians sent ambassadors to Cyrus, offering to submit on the terms which had formerly been proposed. But these terms were now refused; and the Ionians, having determined to resist, applied to the Spartans for assistance. The Spartans however could not at that time be prevailed upon to give their countrymen any aid; but they sent ambassadors to Cyrus with a threatening message, to which he returned a contemptuous answer, and then forced the Ionians to yield at discretion, five years before the taking of Babylon. Thus commenced the hatred between the Greeks and Persians; and thus in the first two great monarchies the seeds of destruction were sown even before these monarchies were themselves established. For whilst Nebuchadnezzar occupied himself in raising the Babylonian empire, his son was destroying what his father built up; and at the very time when Cyrus was establishing the Persian monarchy, that prince, by his ill-timed severity to the Greeks, rendered that warlike people his enemies. The transactions of Africa during this period are almost entirely unknown; though we cannot doubt that the Carthaginians enriched themselves by means of their commerce, which afterwards enabled them to attain a considerable share of power.

Fifth period. Cyrus having now become master of all the East, Asiatic affairs continued for some time in a state of tranquillity. The Jews obtained liberty to return to their own country, to rebuild their temple, and to re-establish their worship, though from that time they must have been in a state of dependence on the Persians. Cambyses, the successor of Cyrus, added to his empire Egypt, which had either not submitted to Cyrus, or had revolted soon after his death. He intended also to have subdued the Carthaginians; but as the Phœnicians refused to supply him with ships to fight against their own countrymen, he was obliged to lay aside this design.

In 517 before Christ, the Babylonians finding themselves oppressed by their Persian masters, resolved to shake off the yoke, and establish their independence. For this purpose, they took care to store their city with all manner of provisions; and when Darius Hystaspes, then king of Persia, advanced against them, they employed a most barbarous method to prevent an unnecessary consumption of the provisions which they had so carefully amassed. Having collected into one place all the women, old men, and children, they strangled them without distinction, whether wives, fathers, mothers, brothers, or sisters; every one being allowed to save only the wife he liked best, and a maid servant to do the work of the house. But this cruel policy did not avail them. Their city, which could not be carried by force, was taken by treachery; after which the king caused the walls to be reduced from two hundred to fifty cubits in height, that their strength might no longer give encouragement to the inhabitants to revolt. Darius then turned his arms against the Scythians; but finding that his expedition against that people proved both tedious and unprofitable, he directed his course eastward, and reduced all the country as far as the Indus. In the mean time the Ionians revolted; and being assisted by the Greeks, a war commenced between the two nations, which was not thoroughly extinguished till the destruction of the Persian empire, in the year before Christ 330. The Ionians, however, after a war of six years, were for

History. this time obliged to submit, and were treated with great severity by the Persians. The conquest of Greece itself was then projected. But the expeditions undertaken with that view ended most unfortunately for the Persians, and encouraged the Greeks to make reprisals, in which they succeeded according to their utmost wishes; and if they had agreed amongst themselves, the overthrow of the Persian empire would not have been reserved for Alexander.

In 459 the Egyptians made an attempt to recover their liberty, but, after a war of six years, they were reduced to submission. In the year 413 they revolted a second time. On this occasion they were assisted by the Sidonians, a circumstance which drew upon the latter that terrible destruction foretold by the prophets; whilst the principals were themselves so thoroughly humbled, that they never afterwards made any attempt to recover their liberty. The cruelties exercised by the Persians in Egypt were without example even in the annals of the barbarous nation by whom they were perpetrated. The familiar illustration of a bull in a china shop presents but a faint image of a fanatical savage with arms in his hands, let loose amidst the monuments of a high civilization. The Egyptians, however, made two gallant efforts to recover their lost independence. Despair gave them courage; and if they had not been tainted with that degeneracy which always follows in the train of refinement, when untempered and unennobled by the spirit of liberty, success would probably have crowned their efforts. But insurrections are always easily put down in countries where the many exist only for the few, where the people are nothing, and the only point at issue is a question between one despot and another.

The year 403 before Christ proved remarkable for the revolt of Cyrus against his brother Artaxerxes Memnon; a revolt in which, through his own rashness, he miscarried, and lost his life at the battle of Cunaxa, in the province of Babylon. Ten thousand Greek auxiliaries, who had served in his army, made their way back to Greece, though in the heart of a hostile country, and surrounded on all sides by the enemy. In this retreat they were commanded by Xenophon, who has received the highest commendation for his conduct and military skill in bringing it to a happy conclusion. Nor can any praise exceed the merit of having successfully conducted so difficult and perilous an enterprise. A rude barbarian, if success happen to crown the first impulsion of brute force, may easily urge on the rolling tide of conquest; but a retrograde movement, like that executed by Xenophon, requires a combination of the highest and noblest powers of the human mind; anxious prudence, invincible fortitude, prompt decision, inexhaustible fertility in resources, and great knowledge of mankind, blended with superior tactical skill and strategical science, intuitive sagacity in discerning the truth amidst conflicting probabilities, and an entire command of all those artifices or stratagems by which the calculations of an enemy may be deranged, whilst the end contemplated is at the same time accomplished. Two years afterwards the invasions of Agesilaus king of Sparta threatened the Persian empire with total destruction; but from this danger it was relieved by his being recalled to defend his country against the other Grecian states.

During this time the volatile and giddy temper of the Greeks, with their enthusiastic desire of romantic exploits, were preparing for themselves fetters which indeed seemed to be absolutely necessary to prevent them from destroying one another. A zeal for liberty was what they all pretended; but upon most occasions it appeared that this love of liberty was only a desire of dominion. No state in Greece could bear to see another equal to itself; and hence their perpetual contests for pre-eminence, which served to weaken the whole body, and to render them an easy prey to an ambitious and politic prince, capable of

Civil
History.

taking advantage of their intestine divisions. Being all equally impatient of restraint, they never could endure submission to any regular government; and hence their determinations were little else than the decisions of a mob, of which they had afterwards almost constantly reason to repent. Hence also their unworthy treatment of those eminent men whom they ought most to have honoured; of Miltiades, Aristides, Themistocles, Alcibiades, Socrates, Phocion, and others. The various transactions between the Grecian states, though they cut a considerable figure in their own history, make none whatever in a general sketch of the history of the world. We shall therefore merely observe, that in 404 before Christ, the Athenian power was in a manner totally broken by the taking of their city by the Spartans. In 370 that of the Spartans received a severe check from the Thebans at the battle of Leuctra, and eight years afterwards it was still further reduced by the battle of Mantinea. Epaminondas, the great enemy of the Spartans, was killed; but this proved only a more speedy means of subjugating all the states to a foreign, and at that time despicable power. The Macedonians, a barbarous nation, situated to the north of the states of Greece, were, two years after the death of Epaminondas, reduced to the lowest ebb by the Illyrians. The king of Macedonia being killed in an engagement, Philip his brother departed from Thebes, where he had studied the art of war under Epaminondas, to take possession of his kingdom. Being a man of great prudence and policy, he quickly settled his own affairs, vanquished the Illyrians, and, being no stranger to the weakened situation of Greece, began almost immediately to meditate the conquest of it. As the particulars of this enterprise are related under another head, it is sufficient to notice here, that by first attacking those whom he was sure to overcome, by corrupting those whom he thought it dangerous to attack, by pretending sometimes to assist one state and sometimes another, and by imposing upon all as best served his turn, he at last deprived the Greeks of all power of resistance, at least such as could prevent him from attaining his end. In 338 he caused himself to be elected general of the Amphictyons, or council of the Grecian states, under pretence of settling some disturbances which then existed in Greece; but having once obtained liberty to enter that country with an army, he soon convinced the states that they must all submit to his will. He was opposed by the Athenians and Thebans; but the intestine wars of Greece had cut off all her great men, and no general was now to be found capable of opposing him with success.

The king of Macedonia having thus made himself master of the whole of Greece, projected the conquest of Asia. To this he was encouraged by the reverses which had attended the Persians in their expeditions against Greece, the successes of the Greeks in their invasions, and the memorable retreat of the ten thousand under Xenophon. All these events showed the weakness of the Persians, their vast inferiority to the Greeks in military skill, and how easily their empire might be overthrown by a proper union amongst the states. But whilst Philip was preparing to enter upon his grand enterprise, he was murdered by some assassins. His son Alexander, however, was possessed of every quality necessary for the execution of so great a design; and his impetuosity of temper enabled him to carry it into effect with a rapidity unheard of either before or since. It must be confessed, indeed, that the Persian empire was now ripe for destruction, and could not in all probability have withstood an enemy much less powerful than Alexander. The Asiatics have in all ages been much inferior to the European nations in valour and military skill. They were now sunk in luxury and effeminacy; and, what was worse, they seem at this period to have been seized with that infatuation and distraction of councils which scarcely

ever fails to prove the forerunner of destruction. The Persian ministers persuaded their sovereign to reject the prudent advice which was given him, to distress Alexander by laying waste the country, and thus forcing him to return for want of provisions. Nay, they even prevented him from engaging the enemy to advantage, by dividing his forces; and persuaded him to put to death Charidemus the Athenian, who had promised with one hundred thousand men, of whom one third were auxiliaries, to drive the Greeks out of Asia. In his Persian expedition, therefore, Alexander met with only two checks. The one was before Tyre, which for seven months resisted his utmost efforts; and the other was from Memnon the Rhodian, who had undertaken to invade Macedonia. The first of these obstacles Alexander at last surmounted, and treated the governor and inhabitants with the utmost cruelty. The other was scarcely felt; for Memnon died after reducing some of the Grecian islands, and Darius had no other general capable of conducting the enterprise. The Persian empire was totally broken by the victory gained over Darius at Arbela in 331, and next year an end was put to the monarchy by the murder of the king, who fell by the hand of Bessus, one of his own subjects.

The ambition of Alexander was not to be satisfied with the possession of the kingdom of Persia, nor indeed of any other on earth. Nothing less than the total subjection of the world itself seemed sufficient to him; and hence he was now prompted to invade every country of which he could only learn the name, whether it had belonged to the Persians or to other nations. In consequence of this disposition, he invaded and reduced Hyrcania, Bactria, Sogdia, and all the vast tract of country now called Bukharia; and having entered India, he reduced all the nations as far as the Hyphasis, one of the branches of the Indus. But when he desired to proceed farther, and extend his conquests to the eastern extremities of Asia, his troops positively refused to follow him, and he was constrained to return. In 323 before Christ this mighty conqueror died of a fever, without having time to settle the affairs of his vast extended empire, or even to name his successor.

Whilst a Grecian empire thus suddenly sprung up in the East, the rival states of Rome and Carthage were making considerable advances in the West. The Romans were establishing their empire on the most solid foundations, to which their particular situation materially contributed. Being originally little better than lawless banditti, they were despised and hated by the neighbouring states; and this soon produced wars, in which, at first from accidental circumstances, and afterwards from their superior valour and conduct, the Romans proved almost constantly victorious. The jealousies which prevailed amongst the Italian states, and their ignorance of their true interest, prevented them from combining against that aspiring nation, and crushing it in its infancy; whilst the Romans, on the other hand, being kept in a state of continual warfare, became at last such expert soldiers, that no other state on earth was capable of resisting them. During the time of their kings they made a considerable figure amongst the Italian nations; but after the expulsion of the kings, and the commencement of the republic, their conquests became much more rapid and extensive. In 501 before Christ they subdued the Sabines; eight years afterwards the Latins; and in 399 before Christ the city of Veii, the strongest in Italy, was taken after a siege of ten years. But, in the midst of their successes, a sudden irruption of the Gauls had almost put an end to their power and existence as a nation. The city was burned to the ground in 383 before Christ, and the capital on the point of being surprised, when the Gauls, who were climbing up the walls in the night, were accidentally discovered and repulsed. In a short time Rome was rebuilt

Civil
History.

Civil
History.

with greater splendour than before; but now there occurred a general revolt and combination of the nations formerly subdued. The Romans however still proved superior to their enemies; but, even at the time of the death of Camillus, which happened about 352 before Christ, their territories scarcely extended six or seven leagues from the capital. The republic from the beginning was agitated by those dissensions which at last proved its ruin. The people had been divided by Romulus into two classes, *Patricians* and *Plebeians*, answering to our nobility and commonalty. Between these two bodies there existed perpetual jealousies and contentions, which retarded the progress of the Roman conquests, and revived the hopes of the nations whom they had conquered. The tribunes of the people were perpetually opposing the consuls and military tribunes. The senate had often recourse to a dictator intrusted with absolute power, and then the valour and experience of the Roman troops rendered them victorious; but the recurrence of domestic seditions gave the subdued nations an opportunity of shaking off the yoke. Thus the Romans had continued for nearly four hundred years, running the same round of wars with the same enemies, and reaping very little advantage from their conquests, till at last matters were compounded by choosing one of the consuls from amongst the plebeians; and from this time chiefly we may date the prosperity of Rome, so that by the time when Alexander the Great died, they were held in considerable estimation amongst foreign nations.

The Carthaginians in the mean time continued to enrich themselves by commerce; but being less conversant with military affairs, they were by no means equal to the Romans in power, though they excelled them in wealth. During this period, however, a new state made its appearance, which may be said to have taught the Carthaginians the art of war, and, by bringing them into contact with the Romans, proved the original source of contention between these two powerful nations. This was the island of Sicily. At what precise time this island was first settled, has not been ascertained. The earliest inhabitants we read of were called *Sicani*, *Siculi*, *Læstrigones*; but of these we know little or nothing. In the second year of the seventeenth Olympiad, or 710 before Christ, some Greek colonies arrived on the island, and in a short time founded several cities, the chief of which was Syracuse. The Syracusans at length subdued the original inhabitants, though it does not appear that the latter were ever well affected to their government. The first considerable prince, or, as he is called by the Greeks, *tyrant* of Syracuse, was Gelon, who obtained the sovereignty about the year 483 before Christ. At what time the Carthaginians first carried their arms into Sicily is not certainly known; but we are assured that they possessed some part of the island as early as 505 before Christ. In the time of the first consuls, the Romans and Carthaginians entered into a treaty chiefly in regard to matters of navigation and commerce, by which it was stipulated that the Romans who might touch at Sardinia, or that part of Sicily which belonged to Carthage, should be received there in the same manner as the Carthaginians themselves. It hence appears that the dominion of Carthage already extended over Sardinia and part of Sicily; but, twenty-eight years afterwards, the Carthaginians had been totally driven out by Gelon. This was probably the first exploit performed by him; at least such is the conclusion deduced from his speech to the Athenian and Spartan ambassadors, who desired his assistance against the forces of Xerxes king of Persia. To regain their possessions in this island the Carthaginians made many attempts, which occasioned long and bloody wars between them and the Greeks. The island also proved the scene of much

Civil
History.

slaughter and bloodshed in the wars of the Greeks with one another. Previously to the year 323 before Christ, however, the Carthaginians had made themselves masters of a considerable part of it, and from this all the power of the Greeks failed to dislodge them. It is proper also to observe, that after the destruction of Tyre by Alexander the Great, almost all the commerce in the western part of the world fell to the share of the Carthaginians. Whether they had at this time effected any settlements in Spain is not known. It is certain that they traded to that country for the sake of the silver in which it abounded, as, according to most accounts, they did also to Britain for the tin which it produced.

The beginning of the sixth period presents us with Sixth period a state of the world entirely different from any thing that preceded it. We now behold all the eastern part of the world, from the confines of Italy to the Indus, and even beyond it, united into one vast empire, and at the same time ready to fall to pieces for want of a proper head; and the western world filled with fierce and savage nations, whom the rival republics of Carthage and Rome were preparing to enslave as fast as they could. The first remarkable events took place in the Macedonian empire. Alexander, as already observed, had not distinctly named any successor; but he had left behind him a victorious and invincible army, commanded by most expert officers, all of them ambitious of supreme authority. It is not to be supposed that peace could long be preserved in such a situation. For a number of years, indeed, nothing was heard of but horrid slaughters, and wickedness of every kind, until at last the mother, wives, children, brothers, and even sisters, of Alexander, were cut off, not one of the family of that great conqueror being left alive. When these disturbances had somewhat subsided, four new empires, each of them of no small extent, arose out of that of Alexander. Cassander, the son of Antipater, received Macedonia and Greece; Antigonus got Asia Minor; Seleucus had Babylon and the eastern provinces; and Ptolemy Lagus obtained Egypt and the western countries of Africa. One of these empires, however, quickly fell to pieces. Antigonus being defeated and killed by Seleucus and Lysimachus at the battle of Ipsus, in 301 before Christ, the greater part of his dominions fell to Seleucus; but several provinces took the advantage of this confusion to shake off the Macedonian yoke, and thus were formed the kingdoms of Pontus, Bithynia, Pergamus, Armenia, and Cappadocia. The two most powerful and permanent empires, however, were those of Syria, founded by Seleucus, and of Egypt, founded by Ptolemy Lagus. The kings of Macedonia, though they did not preserve the same authority over the Grecian states which Alexander, Antipater, and Cassander, had done, yet effectually prevented them from committing those outrages upon one another for which they had formerly been so remarkable. Indeed it is somewhat difficult to determine whether their condition was better or worse than before they were conquered by Philip; for, though they were now prevented from destroying one another, they were grievously oppressed by the Macedonian tyrants.

Whilst the eastern parts of the world were thus deluged with blood, and the successors of Alexander were pulling to pieces the empire which he had established, the Romans and Carthaginians proceeded in their attempts to enslave the nations of the West. The Romans, ever engaged in war, conquered one city and state after another, till about the year 253 before Christ, when they had made themselves masters of almost the whole of Italy. During this time they had met with only a single check in their conquests, namely, the invasion of Pyrrhus, king of Epirus. That ambitious and fickle prince had projected the conquest of Italy, which he fancied would be an easy

Civil
History.

achievement. Accordingly, in the year 271 before Christ, he entered that country, and maintained a war with the Romans for six years, till at last, being utterly defeated by Curius Dentatus, he was obliged to return humbled to his own country.

The Romans had no sooner made themselves masters of Italy, than they wanted only a pretence to carry their arms beyond it, and it was not long before this pretence was found. Being invited into Sicily to assist the Mamertines against Hiero king of Syracuse and the Carthaginians, they immediately commenced a war with the latter, which continued with the utmost fury for twenty-three years. The war ended greatly to the disadvantage of the Carthaginians, chiefly owing to the bad conduct of their generals, none of whom, Hamilcar Barcas alone excepted, seem to have been possessed of any military skill; and the state had suffered too many misfortunes before he entered upon the command, for him or any other to retrieve its fortunes at that time. The consequences of this war was the entire loss of Sicily; and soon afterwards the Romans seized on the island of Sardinia.

Hamilcar perceiving that in a short time Carthage must either conquer Rome, or Rome would conquer Carthage, bethought himself of a method by which his country might become equal to the haughty republic by which it was threatened. This was by reducing all Spain, in which the Carthaginians had already considerable possessions, and from the mines of which they derived great advantages. He had, therefore, no sooner finished the war with the mercenaries, which succeeded that with the Romans, than he set about the conquest of Spain. This, however, he did not live to effect, though he had made great progress towards its accomplishment. His son Asdrubal continued the war with success, till at last the Romans, jealous of his progress, persuaded him to enter into a treaty with them, by which he engaged himself to make the river Iberus the boundary of his conquests. This treaty was probably never ratified by the senate of Carthage, nor, even if it had, would it have been regarded by Hannibal, who succeeded Asdrubal in the command, and had sworn eternal enmity with the Romans. The transactions of the second Punic war are amongst the most remarkable which the history of the world exhibits. Certain it is, that nothing can show more clearly the slight foundations upon which the greatest empires are built. We find the Romans, the nation most remarkable for their military skill, and who, for more than five hundred years, had been constantly victorious, unable to resist the efforts of a single man. At the same time we observe this man, though evidently the first general in the world, lost solely for want of timely support. In former times, the republic of Carthage had supplied her generals in Sicily with hundreds of thousands, though their enterprises were almost constantly unsuccessful; but now Hannibal, the conqueror of Italy, was obliged to abandon his design, merely for want of twenty or thirty thousand men. That degeneracy and infatuation which never fail to overwhelm a falling nation, or which are rather the causes of its fall, had now infected the counsels of Carthage; the supplies were denied; and the propitious moment was for ever lost. Neither was Carthage the only infatuated nation. Hannibal, whose prudence never forsook him either in prosperity or adversity, had, in the height of his good fortune, concluded an alliance with Philip, king of Macedonia. If that prince had sent an army to the assistance of the Carthaginians in Italy immediately after the battle of Cannæ, there can be no doubt that the Romans would have been forced to accept of the peace which they so haughtily refused; and indeed this offer of peace, in the midst of so much success, is an instance of moderation which perhaps does more honour to the Carthaginian general than all the mi-

Civil
History.

litary exploits which he had performed. Philip, however, could not be roused from his indolence, nor made to perceive that his own ruin was connected with that of Carthage. The Romans having now made themselves masters of Sicily, recalled Marcellus, with his victorious army, to be employed against Hannibal; and the Carthaginian armies being unsupported in Italy, which they were no longer in a condition to conquer, were recalled into Africa, which the Romans had already invaded. The southern nations seem to have been as blind to their own interest as the northern. They ought to have seen that it was necessary for them to preserve Carthage from being destroyed; but instead of this, Masinissa, king of Numidia, formed an alliance with the Romans, and by his means Hannibal was overcome at the battle of Zama, which terminated the second Punic war, in the year 188 before our era.

The event of the second Punic war determined the fate of almost all the other nations in the world. All this time, indeed, the empires of Egypt, Syria, and Greece, had been accelerating their own ruin by mutual wars and intestine divisions. The Syrian empire was now governed by Antiochus the Great, who seems to have had little right to such a title. His empire, though diminished by the defection of the Parthians, was still very powerful; and to him Hannibal applied, after he had been obliged to leave his own country. Antiochus, however, had not sufficient judgment to discern the necessity of following that great man's advice; nor could the Carthaginians be prevailed on to contribute their assistance against the nation which was soon, without any provocation, to destroy them. The pretence for war on the part of the Romans was, that Antiochus refused to declare his Greek subjects in Asia free and independent states; a requisition which neither the Romans nor any other nation had a right to make. The result was, that Antiochus was everywhere defeated, and forced to conclude a peace upon very disadvantageous terms.

In Europe, the course of events was nearly the same. The states of Greece, weary of the tyranny of the Macedonians, entered into a resolution to recover their liberties. For this purpose was framed the famous Achæan League; but as they could not agree amongst themselves, they at last came to the imprudent determination of calling in the Romans to defend them against Philip king of Macedonia. This produced a war, in which the Romans were victorious. The Macedonians, however, were still formidable; and as the intention of the Romans to enslave the whole world could no longer be doubted, Perseus, the successor of Philip, renewed the war. But through his own cowardice he lost a decisive engagement, and with it his kingdom, which submitted to the Romans in 167 before Christ.

Macedonia being thus conquered, the next step was utterly to exterminate the Carthaginians, whose republic, notwithstanding the many disasters which had befallen it, was still formidable. It is true, the Carthaginians had given no offence; nay, they even made the most abject submissions to the republic of Rome. But all this was not sufficient. War was declared a third time against that unfortunate state; and as there was now no Hannibal to command their armies, the city was utterly destroyed, 146 before Christ. The same year the Romans put an end to the liberties they had pretended to grant the cities of Greece, by the entire destruction of Corinth.

After the death of Antiochus the Great, the affairs of Syria and Egypt proceeded from bad to worse. The degenerate princes who filled the thrones of those empires, regarding only their own pleasures, either spent their time in oppressing their subjects, or in attempting to deprive each other of their dominions, and thus became a

Civil
History.

more easy prey to the Romans. So far indeed were they from taking any means to secure themselves against the overgrown power of the republic, that the kings both of Syria and Egypt sometimes applied to the Romans as protectors. Their downfall, however, did not take place within the period of which we now treat. The only other transaction which makes any considerable figure in the Syrian empire is the oppression of the Jews by Antiochus Epiphanes. After their return from the Babylonian captivity, they continued in subjection to the Persians till the time of Alexander. From that epoch they were alternately subject to the kings of Egypt or Syria, as the fortune of either happened to prevail. Egypt being reduced to a low ebb by Antiochus Epiphanes, the Jews fell under his dominion; and being severely treated by him, imprudently showed some signs of joy on a report of his death. This brought him against them with a powerful army; and, in 170 before Christ, he took Jerusalem by storm, committing the most horrid cruelties on the inhabitants, insomuch that they were obliged to hide themselves in caverns and in holes of the rocks to avoid his fury. Their religion was totally abolished, their temple profaned, and an image of Jupiter Olympius set up on the altar of burnt-offerings; a profanation which is thought to be the "abomination of desolation" mentioned by the prophet Daniel. This revolution, however, was not of long continuance. In the year 167 before Christ, Mattathias restored the true worship in most of the cities of Judæa; and in 168 the temple was purified, and the worship there restored by Judas Maccabæus. This was followed by a long series of wars between the Syrians and Jews, in which the latter were almost always victorious.

Seventh
period.

The beginning of the seventh period presents us with a view of the ruins of the Greek empire in the declining states of Syria and Egypt, both of them much circumscribed in limits. The empire of Syria at first comprehended all Asia as far as the river Indus, and beyond it; but in 312 most of the Indian provinces were ceded by Seleucus to Sandrocottus, or Androcottus, a native, who in return gave him five hundred elephants. Of the empire of Sandrocottus we know nothing further than that he subdued all the countries between the Indus and the Ganges; and that from this time the greater part of India became independent of the Syro-Macedonian princes. In 250 before Christ, however, the empire sustained a much greater loss by the revolt of the Parthians and Bactrians from Antiochus Theus. The former could not be subdued; and as they held in subjection the vast tract which now goes under the name of Persia, their defection must be looked on as an irreparable loss. Whether any part of their country was afterwards recovered by the kings of Egypt or Syria is not very certain; nor is it of much consequence, since we are assured that in the beginning of the seventh period, or about a century and a half before Christ, the Greek empires of Syria and Egypt were reduced by the loss of India, Persia, Armenia, Pontus, Bithynia, Cappadocia, Pergamus, and other countries. The general state of the world in 146 before Christ, therefore, was as follows: In Asia were the empires of India, Parthia, and Syria, with the lesser states of Armenia, Pontus, and others above mentioned; to which must be added that of Arabia, which during the sixth period had grown into some consequence, and had maintained its independence from the days of Ishmael the son of Abraham. In Africa were the kingdoms of Egypt and Ethiopia; the Carthaginian territories, now subject to the Romans; and the kingdoms of Numidia, Mauritania, and Getulia, ready to be swallowed up by the same ambitious and insatiable power, now that Carthage, which served as a barrier, had been overthrown. To the south lay some unknown and barbarous nations, secure, by reason of their situation and insignificance, rather than by

Civil
History.

their strength or distance from Rome. In Europe we find none to oppose the progress of the Roman arms except the Gauls, Germans, and some Spanish nations, all of whom were brave indeed, but, through want of military skill, incapable of contending with such masters in the art of war as the Romans.

The Spaniards had indeed been subdued by Scipio Africanus in the time of the second Punic war; but in 155 before Christ they revolted, and, under the conduct of one Viriathus, who had previously been a robber, held out for a long time against all the armies Rome could send against them. The city of Numantia defied the whole Roman power for six years longer, till at last the inhabitants, reduced to extremity by famine, set fire to their houses, and perished in the flames, or killed one another, so that not one remained to grace the triumph of the conqueror. This calamitous consummation produced a temporary tranquillity in Spain. About the same time Attalus, king of Pergamus, having left by will the Roman people his heirs, they immediately seized on his kingdom, and reduced it to a Roman province, under the name of Asia Proper. Thus they continued to enlarge their dominions on every side, without the least regard to justice, to the means they employed, or to the miseries they brought upon the conquered nations. In 122 before Christ the Balearic Islands, now called Majorca, Minorca, and Iviça, were subdued, and the inhabitants exterminated; and soon afterwards several of the nations beyond the Alps were obliged to submit.

In Africa the crimes of Jugurtha soon afforded this ambitious republic an opportunity of conquering the kingdoms of Numidia and Mauritania; and indeed this is almost the only war in which we find the Romans engaged where their pretensions had the least colour of justice, though in no case whatever could a nation show more degeneracy than the Romans did upon this occasion. The particulars of this war are related under other heads. The event was the total reduction of Numidia, about the year 105 before Christ; but Mauritania and Getulia preserved their liberty for some time longer.

In the East, the empire of Syria continued daily to decline, and thus the Jews not only had an opportunity of recovering their liberty, but even of becoming as powerful, or at least of extending their dominions as far, as in the days of David and Solomon. This declining empire was still further reduced by the civil dissensions between the two brothers Antiochus Grypus and Antiochus Cyzicenus, during which the cities of Tyre, Sidon, Ptolemais, and Gaza, declared themselves independent; and in other cities tyrants started up who refused allegiance to any foreign power. This happened about a century before the Christian era, and seventeen years afterwards the whole was reduced by Tigranes, king of Armenia. But he was defeated by the Romans, who reduced Syria to the state of a province of their empire. The kingdom of Armenia itself, with those of Pontus, Cappadocia, and Bithynia, soon shared the same fate; Pontus, the most powerful of them all, being subdued about 64 before Christ. About this time the kingdom of Judæa was also reduced under the power of the same people. This state owed the loss of its liberty to the same cause which had ruined several others, namely, calling in the Romans as arbitrators between two contending parties. The two sons of Alexander Jannæus, Hyrcanus and Aristobulus, contended for the kingdom; and Aristobulus, being defeated by the party of Hyrcanus, applied to the Romans. Pompey the Great, who acted as ultimate judge in this affair, decided it against Aristobulus, but at the same time deprived Hyrcanus of all power as a king, and even refused him permission to assume the regal title, or to extend his territory beyond the ancient borders of Judæa. He also obliged Hyrcanus to

Civil
History.

give up all those cities in Cœlosyria and Phœnicia which had been gained by his predecessors, and added them to the newly-acquired Roman province of Syria.

Thus the Romans became masters of the countries of the East, from the Mediterranean Sea to the borders of Parthia. In the West, however, the Gauls still enjoyed liberty, and the Spanish nations bore the Roman yoke with the greatest impatience. The Gauls infested the territories of the republic by frequent incursions; and though several attempts had been made to subdue them, these always proved insufficient till the time of Julius Cæsar. By him, however, they were totally reduced, from the river Rhine to the Pyrenean Mountains, and many of their tribes or branches were almost exterminated. He carried his arms also into Germany and the southern parts of Britain; but in neither of these attempts did he effect any permanent conquests. The civil wars between him and Pompey gave him an opportunity of seizing on the kingdom of Mauritania, and those parts of Numidia which had been allowed to retain their liberty. The kingdom of Egypt alone remained; but to this nothing belonged excepting the country properly so called. Cyrenaica was bequeathed by will to the Romans in the year 58 before Christ; and about the same time the island of Cyprus was seized by them, without any pretence except a desire of possessing the treasure of the king. The kingdom of Egypt continued for some time longer at liberty; but this must in some measure be ascribed to the internal dissensions of the republic, more especially to the amours of Pompey, Julius Cæsar, and Mark Antony, with the famous Cleopatra, queen of Egypt. The battle of Actium, however, determined at one blow the fate of Antony, Cleopatra, and Egypt, which last was reduced to a Roman province about nine years before our era.

Whilst the Romans thus employed every means to reduce the world to subjection, they were making one another feel the same miseries at home which they inflicted upon other nations abroad. The first civil dissensions took their rise at the siege of Numantia, in Spain, which, as we have already observed, resisted the whole power of Rome for six years. On one occasion thirty thousand Romans fled before four thousand Numantines. Twenty thousand were killed in the battle, and the remaining ten thousand were so shut up that they had no means of escape. In this extremity they were obliged to negotiate with the enemy, and a peace was concluded upon the conditions, first, that the Numantines should suffer the Romans to retire unmolested; and, secondly, that Numantia should maintain its independence, and be reckoned amongst the allies of Rome. But the Roman senate, with unexampled injustice and ingratitude, broke this treaty, and in return ordered the commander of their army to be delivered up to the Numantines; but they refused to accept of him unless his army was delivered along with him, and the war was renewed, and ended as already related. The fate of Numantia, however, was soon revenged. Tiberius Sempronius Gracchus, brother-in-law of Scipio Africanus the second, had been the chief promoter of the peace with the Numantines already mentioned, and of consequence had been in danger of being delivered up to them along with the commander-in-chief. This disgrace he never forgot or forgave; and, in order to revenge himself, undertook the cause of the plebeians against the patricians, by whom the former were greatly oppressed. He began with reviving an old law, which had enacted that no Roman citizen should possess more than five hundred acres (*jugera*) of land; and he designed to distribute the excess amongst those who had no lands, and to reimburse the rich out of the public treasury. This law met with great opposition, produced many tumults, and at last ended in the death of Gracchus and the persecution of his friends,

several hundreds of whom were put to death in the most cruel manner, without any form of law.

But the disturbances did not cease with the death of Gracchus. New contests ensued on account of the Sempronian law, and particularly giving to the Italian allies the privilege of Roman citizens, which not only produced great commotions in the city, but occasioned a general revolt of the states of Italy against the republic of Rome. This rebellion was not quelled without great difficulty; and in the mean time the city was deluged with blood by the contending factions of Sylla and Marius, the former of whom sided with the patricians, and the latter with the plebeians. These disturbances ended in the perpetual dictatorship of Sylla, about 80 years before Christ.

From this time we may date the loss of Roman liberty; for though Sylla resigned his dictatorship two years afterwards, the succeeding contests between Cæsar and Pompey proved equally fatal to the republic. These contests were decided by the battle of Pharsalia, 43 before Christ, which rendered Cæsar in effect master of the empire. Without loss of time he then passed into Africa, totally defeated the republican army in that continent, reduced the country of Mauritania to a Roman province, and completed the Roman conquests in those parts. His victory over the sons of Pompey at Munda, 40 before Christ, secured him from any further apprehensions of a rival. Being therefore sole master of the Roman empire, and having all the power in his hands, he projected great schemes, tending, according to some, not less to the happiness than to the glory of his country; but he was assassinated in the senate-house, in the fifty-sixth year of his age, and 39 before Christ.

Without investigating the political justice of this action, or the motives of the perpetrators, it is impossible not to regret the death of this great man, when we contemplate the designs which he is said to have formed. Nor is it possible to justify even the most virtuous of the conspirators, when we consider the obligations under which they lay to him they slew; and as to the measure itself, even in the view of expediency, it seems to be generally condemned. But, from the transactions which had long preceded, as well as those which immediately followed, the murder of Cæsar, it is evident that Rome was incapable of preserving its liberty, and that the people had become unfit for being free. The efforts of Brutus and Cassius were therefore unsuccessful, and ended in their own destruction, as well as in that of great numbers of their followers, at the battle of Philippi. The defeat of the republicans was followed by numberless disturbances, proscriptions, and murders, till at last Octavianus, having cut off all who had the courage to oppose him, and finally obtained the superiority over his rivals by the victory at Actium, put an end to the republic in the year 27 before Christ.

The destruction of the Roman commonwealth proved advantageous to the few nations of the world who still retained their liberty. That outrageous desire of conquest which had so long marked the Roman character in a great measure ceased; there was now another way of satisfying the desires of ambitious men, namely, by courting the favour of the emperor. After the final reduction of the Spaniards, therefore, and the conquests of the countries of Mesia, Pannonia, and some others adjacent to the Roman territories, and which in a manner seemed naturally to belong to them, the empire enjoyed for some time a profound peace.

The only remarkable transactions which took place during the remainder of the period of which we treat, were the conquest of Britain by Claudius and Agricola, and the destruction of Jerusalem by Vespasian and Titus. The war with the Jews began A. D. 67, and was occasioned by their obstinately claiming the city of Cæsarea, which the Ro-

Civil
History.

Civil
History.

mans had added to the province of Syria. It ended with the destruction of their city and nation, in 73; and since that time they have never been able to assemble as a distinct people. The southern parts of Britain were totally subdued by Agricola about ten years afterwards.

In the 98th year of the Christian era, Trajan was created emperor of Rome; and being a man of great valour and experience in war, he carried the Roman conquests to their utmost extent. Having conquered the Dacians, a German nation beyond the Danube, who had proved extremely troublesome, he turned his arms eastward; reduced all Mesopotamia, Chaldæa, and Assyria; and having taken Ctesiphon, the capital of the Parthian empire, appointed a king, which he thought would be a proper method of keeping the warlike population in subjection. After this he proposed to return to Italy, but died by the way; and with his reign the seventh general period above mentioned concluded.

Eighth pe-
riod.

The beginning of the eighth period presents us with a view of one vast empire, in which almost all the nations of the world as then known were swallowed up. This empire comprehended the best part of Britain, all Spain, France, the Netherlands, Italy, part of Germany, Egypt, Barbary, Bildulgerid, Turkey in Europe, Turkey in Asia, and Persia. The state of India was at this time nearly unknown. The Chinese lived in a remote part of the world, unheard of and unmolested by the western nations who struggled for the empire of the world. The northern parts of Europe and Asia were filled with barbarous nations, already formidable to the Romans, and who were destined soon to become more so. The vast empire of Rome, however, had no sooner attained its utmost degree of power, than, like those which had preceded it, it began to decline. The provinces of Babylonia, Mesopotamia, and Assyria almost instantly revolted, and were abandoned by Hadrian, the successor of Trajan in the empire. The Parthians having recovered their liberty, proved formidable enemies, and the barbarians of the northern parts of Europe continued to increase in strength; whilst the Romans, weakened by intestine divisions, became daily less able to resist them. At different times, however, some warlike emperors arose, who put a stop to the incursions of these barbarians; and, about the year 215, the Parthian empire was totally overthrown by the Persians, who had long been subject to it. But this revolution proved of little advantage to the Romans. The Persians were enemies still more troublesome than the Parthians had been; and though often defeated, they still continued to infest the empire on the east, as the barbarous nations of Europe did on the north. In the year 260, the defeat and captivity of the Emperor Valerian by the Persians, with the disturbances which followed, threatened the empire with utter destruction. Thirty tyrants seized the government at once, and the barbarians pouring in on all sides in prodigious numbers, ravaged almost all the provinces of the empire. By the vigorous conduct of Claudius, Aurelian, Tacitus, Probus, and Carus, the empire was restored to its former lustre; but as the barbarians were only repulsed, and never thoroughly subdued, this proved merely a temporary relief; and, what was worse, the Roman soldiers, growing impatient of all restraint, commonly murdered those emperors who attempted to revive the ancient military discipline, which alone could insure victory. Under Diocletian the disorders were so great, that, though the government was held by two persons, they found themselves unable to bear the weight of it, and therefore assumed two other partners in the empire. Thus was the Roman empire divided into four parts; a division which is considered by all historians to have been productive of the greatest evils. For as each of these four sovereigns had as many officers, both civil and military, and the same number of forces which had been maintained by the state when

Civil
History.

governed only by one emperor, the people were unable to pay the sums necessary for supporting them. Hence the taxes and imposts were increased beyond measure, the inhabitants in several provinces were reduced to beggary, and the land was left untilled for want of labourers. An end was put to these evils when the empire was again united under Constantine the Great; but in 330 a mortal blow was given to it by removing the imperial seat to Byzantium, now Constantinople, and making it co-ordinate with Rome. The introduction and establishment of Christianity, already corrupted with the grossest superstitions, proved also a grievous detriment to the empire. Instead of that steady and obstinate valour in which the Romans had so long been accustomed to put their trust, they now imagined themselves secured by signs of the Cross, and other external symbols of the Christian religion, which they used as a kind of magical incantations; and hence proceeded in some measure the great revolution which took place in the next period.

The ninth general period includes the decline and fall Ninth pe-
of the western empire. That empire, which formerly oc-riod.

cupied almost the whole world, was now weakened by division and surrounded by enemies. On the east the Persians, on the north the Scythians, Sarmatians, Goths, and other barbarous nations, watched all occasions to break into it; and though they miscarried in their attempts, this was owing more to their own barbarity than to the strength of their enemies. The devastations committed by these barbarians, when they made their incursions, are incredible in themselves, and the relation is shocking to human nature. Some authors seem much inclined to favour them, and even to insinuate that barbarity and ignorant ferocity were their chief, if not their only defects. But from their history it appears, that not only barbarity and the most shocking cruelty, but the highest degree of avarice, perfidy, and disregard to the most solemn promises, were to be numbered amongst their vices. It was ever a sufficient reason for them to make an attack, that they thought their enemies could not resist them. Their only reason for making peace, or for keeping it when made, was because their enemies were too strong; and if they gained a victory, this was, in their estimation, sufficient to justify the most horrid massacres, rapes, and all manner of crimes. The Romans, degenerate as they had become, were yet esteemed much better than these savages; and therefore we find that not a single province of the empire would submit to the barbarians whilst the Romans could possibly defend it.

Some of the Roman emperors indeed withstood this inundation of savages; but as the latter grew daily more numerous, and the Romans continued to weaken themselves by their intestine divisions, they were at last obliged to take large bodies of barbarians into their pay, and to teach them military discipline, in order to drive away their countrymen, or others who had invaded the empire. This policy at last proved its total destruction. In 476, the barbarians who had served in the Roman armies, and were dignified with the title of "allies," demanded the third part of the lands of Italy as the reward of their services; but meeting with a refusal, they revolted, and made themselves masters of the whole country, and of Rome itself, which from that time ceased to be even nominally the head of an empire.

This period exhibits a most unfavourable view of the western parts of the world. The Romans, from the height of grandeur, had sunk to the lowest slavery, and in fact were almost exterminated; the provinces which they formerly governed were inhabited by human beings scarcely a degree above the brutes; every art, every science, was lost; and the savage conquerors were even in danger of starving for want of a sufficient knowledge of agriculture, having now no longer the means of supplying themselves by plunder and robbery. Britain had long been abandon-

Civil
History.

ed to the mercy of the Scots and the Picts; and in 450 the inhabitants had called to their assistance the Saxons, whom they soon found worse enemies than those against whom they had implored their aid. Spain was held by the Goths and Suevians; Africa, that is, Barbary and Bildulgerid, was occupied by the Vandals; the Burgundians, Goths, Franks, and Alans, had erected several small states in Gaul; and Italy was subjected to the Heruli under Odoacer, who had assumed the title of king of Italy. In the East, indeed, matters wore an aspect somewhat more favourable. The Roman empire continued to live in that of Constantinople, which was still extensive. It comprehended all Asia Minor and Syria, as far as Persia; in Africa, the kingdom of Egypt; and in Europe the territory of Greece. The Persians were powerful, and rivalled the emperors of Constantinople; and beyond them lay the Indians, Chinese, and other nations, who, unheard of by the inhabitants of the more western parts, enjoyed unmolested peace and liberty.

The Constantinopolitan empire continued to decline by reason of the continual wars in which it was engaged with the Persians, Bulgarians, and other barbarous nations; and to this also superstition and relaxation of military discipline largely contributed. The Persian empire likewise declined from similar causes, together with the intestine broils, from which it was seldom free. The history of the eastern part of the world during this period, therefore, consists only of the wars between the two empires, which were productive of no other consequence than that of weakening both, and rendering them a more easy prey to those enemies who were ere long to erect an empire almost as extensive as that of the Greeks or Romans.

Amongst the western nations, revolutions succeeded one another with unprecedented rapidity. The Heruli under Odoacer were driven out by the Goths under Theodoric. The Goths again were expelled by the Romans; and, whilst the two parties were contending, both were attacked by the Franks, who carried off an immense booty. The Romans were in their turn expelled by the Goths. The Franks again invaded Italy, and made themselves masters of the province of Venetia; but at last the superior fortune of the emperor of Constantinople prevailed, and the Goths were finally subdued in 553. Narses, the conqueror of the Goths, governed Italy as a province of the eastern empire till the year 568, when Longinus his successor made considerable alterations. The Italian provinces had, ever since the time of Constantine the Great, been governed by *consulares*, *correctores*, and *præsides*, no alteration having been made either by the Roman emperors, or even by the Gothic kings. But Longinus, being invested with absolute power by Justinian, suppressed these magistrates, and, instead of them, placed in each city of note a governor, whom he distinguished with the title of *duke*. The city of Rome was not more honoured than any other; for Longinus, having abolished the very name of senate and consuls, appointed a duke of Rome as well as of other cities. For himself he reserved the title of *exarch*; and as he resided at Ravenna, his government was styled the exarchate of Ravenna. But whilst he was establishing this new empire, the greater part of Italy was conquered by the Lombards.

In France a considerable revolution also took place. In 487, Clovis, the founder of the French monarchy, possessed himself of all the countries situated between the Rhine and the Loire; and, by force or treachery, he conquered all the petty kingdoms which had been erected in that country. His dominions had been divided, united, and divided again; and were on the point of being again united, when the followers of Mahommed began to make a figure in the world, and to threaten all the countries of the West.

Civil
History.

In Spain, the Visigoths had erected a kingdom ten years before the conquest of Rome by the Heruli. This kingdom they had extended to the eastward, about the same time that Clovis was extending his conquests to the westward; so that the two kingdoms were separated only by the Loire. The consequence of this approximation was an immediate war. But Clovis proved victorious, and, having subdued the greater part of the country of the Visigoths, put a final stop to their conquests on that side.

Another kingdom had been founded in the western part of Spain by the Suevi, a considerable time before the Romans were finally expelled from that country. But in 409 this kingdom was entirely subverted by Theodoric king of the Goths; and the Suevi were so pent up in a small district of Lusitania and Galicia, that it seemed impossible for them ever to recover the ground they had lost. During the above-mentioned period, however, whilst the attention of the Goths was turned another way, they found means again to erect themselves into an independent state, and to become masters of considerably extended territories. But this success proved of short duration. In 584 the Goths attacked them, and having totally destroyed their power, became masters of all Spain, excepting a small part which still owned subjection to the emperors of Constantinople. Of this part, however, the Goths also possessed themselves in the year 623, which concludes the ninth general period.

Africa, properly so called, had changed masters three times during this period. The Vandals had expelled the Romans, and erected an independent kingdom, which was at length overturned by the emperors of Constantinople; and from them the greater part of it was taken by the Goths in the year 620.

At the commencement of the tenth general period, Tenth pe- which begins with the flight of Mahommed in the year 622, whence his followers date their era called the *Hegira*, we see every thing prepared for the great revolution which was now about to take place. The Roman empire in the west was annihilated; the Persian empire and that of Constantinople were weakened by mutual wars and intestine divisions; the Indians and other eastern nations, unaccustomed to war, were ready to fall a prey to the first invader; and the southern parts of Europe were in a distracted and barbarous state; whilst the inhabitants of Arabia, from their earliest origin accustomed to war and plunder, and now united by the most fanatical superstition and enthusiastic desire of conquest, were, like a pent-up flood, ready to overwhelm the rest of the world. The northern nations of Europe and Asia, which became so formidable in after times, were at present unknown to their southern neighbours; and in no quarter of the globe was there any power capable of opposing the conquests of the Arabs. With amazing celerity, therefore, they overran all Syria, Palestine, Persia, Bukharia, and India, extending their conquests farther to the eastward than Alexander, and carrying all before them. In the west, their empire extended over Egypt, Barbary, and Spain, together with the islands of Sicily, Sardinia, Majorca, Minorca, and the islands of the Archipelago; nor were the coasts of Italy itself free from their incursions, which are even said to have reached as far as Iceland. But at last this great empire began, like others, to decline. Its ruin was sudden, and mainly owing to its internal divisions. Mahommed had not taken care to establish the apostleship in his family, or to give any particular directions about a successor. The consequence of this was, that the caliphate, or succession to the Prophet, was seized by many usurpers in different parts of the empire; whilst the true caliphs, who resided at Bagdad, gradually lost all power, and were regarded only as a kind of high priests. Of these divisions the Turks took advantage to establish their au-

Civil History. **thority in many provinces of the Mahomedan empire ;** but as they embraced the same religion with the Arabs, and were filled with the same enthusiastic desire of conquest, it is of little consequence to distinguish between them, for it signified nothing to the world whether the Turks or Saracens were the conquerors, since both were equally cruel, barbarous, ignorant, and superstitious.

Whilst the barbarians of the East were thus grasping at the empire of the world, great disturbances happened amongst the hardly less barbarous nations of the West. Superstition seems to have been the ruling principle in both cases. The Saracens and Turks conquered for the glory of God, or of his prophet Mahommed and his successors ; the western nations professed an equal regard for the divine glory, which, however, was only to be perceived in the respect they paid to the pope and the clergy. Ever since the establishment of Christianity by Constantine, the bishops of Rome had been gradually extending their power, and attempting not only to render themselves independent, but even to assume an authority over the emperors themselves. The destruction of the empire was so far from weakening their power, that it afforded them opportunities of greatly extending it, and becoming judges of the sovereigns of Italy themselves, whose barbarity and ignorance prompted them to submit to their decisions. During all this time, however, they themselves had been in subjection to the emperors of Constantinople ; but upon the decline of that empire, they found means to get themselves exempted from this subjection. The principal authority in the city of Rome was then engrossed by the bishop, though of right it belonged to the duke appointed by the exarch of Ravenna. But though they had now little to fear from the eastern emperors, they were in great danger from the ambition of the Lombards, who aimed at the conquest of all Italy. This aspiring people the bishops of Rome determined to check ; and therefore, in 726, when Luitprand king of the Lombards had taken Ravenna and expelled the exarch, the pope undertook to restore the latter. For this purpose he applied to the Venetians, who are now first mentioned in history as a state of any consequence ; and by their means the exarch was restored. Some time before this a quarrel had taken place between the pope, Gregory II., and Leo, emperor of the East, about the worship of images. Leo, who in the midst of so much barbarism had still preserved some share of common sense and reason, reprobated in the strongest terms the worship of images, and commanded them to be destroyed throughout his dominions. But the pope, whose cause was favoured by the most absurd superstitions, and by these alone, refused to obey the emperor's commands. The exarch of Ravenna, as a subject of the emperor, was ordered to force the pope to yield a compliance, and even to seize or assassinate him in the event of a refusal. This excited the pious zeal of Luitprand to assist the pope, whom he had formerly designed to subdue. The exarch was first excommunicated, and then torn in pieces by the enraged multitude ; the duke of Naples shared the same fate ; a vast number of the *Iconoclasts*, or Image-breakers, as they were called, were slaughtered without mercy ; and, to complete all, the subjects of the exarchate, at the instigation of the pope, renounced their allegiance to the emperor.

Leo was no sooner informed of this revolt than he ordered a powerful army to be raised, in order to reduce the rebels, and to take vengeance on the pope. Alarmed at these warlike preparations, Gregory looked round for some power upon which he might depend for protection. The Lombards were possessed of sufficient force, but they were too near and too dangerous neighbours to be trusted ; the Venetians, though zealous Catholics, were as yet unable to withstand the force of the empire ; and Spain was overrun by the Saracens. The French seemed, therefore, the only people to

whom it was advisable to apply for aid, as they were able to oppose the emperor, and were likewise enemies to his edict. Charles Martel, who at that time governed France as mayor of the palace, was therefore applied to ; but before a treaty could be concluded, all the parties concerned were removed by death. Constantine Copronymus, who succeeded Leo at Constantinople, not only persisted in the opposition to image-worship begun by his predecessor, but also prohibited the invocation of saints. Zachary, who succeeded Gregory III. in the pontificate, proved as zealous an adversary as his predecessor. Pepin, who succeeded Charles Martel in the sovereignty of France, proved as powerful a friend to the pope as his father had been. The people of Rome had nothing to fear from Constantinople, and therefore drove out all the emperor's officers. The Lombards, awed by the power of France, for some time allowed the pope to govern in peace the dominions of the exarchate ; but in 752, Astolphus king of Lombardy not only reduced the greater part of the pope's territories, but threatened the city of Rome itself. Upon this an application was made to Pepin, who obliged Astolphus to restore the places he had taken, and gave them to the pope, or, as he said, to St Peter. The Greek emperor, to whom they of right belonged, remonstrated to no purpose. The pope from that time became possessed of considerable territories in Italy, which, from the manner of their donation, go under the name of the Patrimony of St Peter. It was not, however, before the year 774 that the pope was fully secured in these new dominions. This was accomplished when the kingdom of the Lombards was totally destroyed by Charlemagne, who was then crowned king of Italy. Soon after this, that monarch made himself master of all the Low Countries, Germany, and part of Hungary ; and in the year 800 he was solemnly crowned by the pope, Emperor of the West.

Thus the world was once more divided into three great empires. That of the Arabs or Saracens extended from the river Ganges to Spain, comprehending almost all those parts of Asia and Africa which were known to Europeans, except the kingdoms of China and Japan. The eastern Roman empire was reduced to Greece, Asia Minor, and the provinces adjoining to Italy. The empire of the West, under Charlemagne, comprehended France, Germany, and the greater part of Italy. The Saxons, however, as yet possessed Britain unmolested by external enemies, though the seven kingdoms erected by them were engaged in perpetual contests. The Venetians also enjoyed a nominal independence, though their situation rendered them dependent upon the great powers which surrounded them. But of all the European potentates, the popes certainly exercised the greatest authority ; for even Charlemagne himself condescended to accept the crown from their hands, and his successors made them the arbiters of their differences.

Matters, however, did not long continue in this state. The empire of Charlemagne, upon the death of his son Louis, was divided amongst his three children. Endless disputes and wars ensued, till at last the sovereign power was seized by Hugh Capet in 987. The Saxon heptarchy was dissolved in 827, and the whole of England reduced under one head. The Danes and Normans now began to make depredations, and to infest the neighbouring states. The former conquered the English Saxons, and seized the government, but were in their turn expelled by the Normans in 1066. In Germany and Italy great disturbances arose out of the disputes between the popes and the emperors ; and, if to all this we add the internal contests which sprung from the ambition of the powerful barons of every kingdom, some idea may be formed of these calamitous times. All Europe, nay, all the world, was one great field of battle ; for the empire of the Ma-

Civil History.

Civil
History.

hommedans was not in a more settled state than that of the Europeans. Caliphs, sultans, emirs, and others, waged continual war in every quarter; new sovereignties every day sprung up, and were as quickly destroyed. In short, through the ignorance and barbarity with which the world was then overspread, it seemed in a manner impossible that the human race could long continue to exist; when happily the crusades, by directing the attention of the Europeans to a foreign object, forced them to suspend their domestic feuds.

Eleventh
period.

The Crusades originated in the superstition of the two grand parties into which the world was at that time divided, namely, the Christians and Mahomedans. Both looked upon the small territory of Palestine, which they denominated the Holy Land, as an invaluable acquisition, for which no sum of money could be any equivalent; and both took the most unjustifiable methods to accomplish their objects. The superstition of Omar, the second caliph, had prompted him to invade this country, part of the territories of the Greek emperor, who had done him no injury; and now, when it had been so long under the subjection of the Mahomedans, a similar superstition prompted the pope to send an army for the recovery of Palestine. The crusaders accordingly poured forth in multitudes, like those with which the kings of Persia formerly invaded Greece; and their fate was in some respects similar. At first, indeed, their impetuous valour carried every thing before them, and they recovered all Palestine, Phœnicia, and part of Syria, from the infidels; but their want of skill soon lost what their valour had obtained, and very few of the vast multitudes which had left Europe ever revisited their native lands. A second, a third, and other crusades, were preached, and attended with like success in both respects. Vast numbers took the cross, and repaired to the Holy Land, which they polluted with the most abominable massacres and treacheries, and from which very few of them ever returned. In the third crusade embarked Richard I. of England, who seems to have been the best general that ever went into the East; but even his valour and skill were not sufficient to repair the faults of his companions, and he was obliged to return after having entirely defeated his antagonists, and been within sight of Jerusalem. See the article CRUSADES.

But whilst the Christians and Mahomedans were thus surreptitiously contending for a small territory in the western parts of Asia, the nations in the more easterly parts were threatened with total extermination. Genghiz Khan, the greatest as well as the most bloody conqueror that ever existed, now made his appearance. The rapidity of his conquests seemed to emulate those of Alexander the Great, and the cruelties which he committed were altogether unparalleled. It is worth observing, that Genghiz Khan and all his followers were neither Christians nor Mahomedans, but strict deists. For a long time even the sovereign had not heard of a temple, nor of any particular place on earth appropriated by the Deity to himself, and treated the notion with ridicule when it was first mentioned to him.

The Moguls, over whom Genghiz Khan assumed the sovereignty, were a people of Eastern Tartary, divided into a great number of petty governments, as they are at this day, but who owned subjection to one sovereign, whom they called *Vang Khan*, or the Great Khan. Temujin, afterwards Genghiz Khan, was one of these petty princes; but being unjustly deprived of the greater part of his inheritance at the age of thirteen, he could not recover it till he arrived at that of forty. This corresponds with the year 1201, when he totally reduced the rebels, and, as a specimen of his lenity, caused seventy of their chiefs to be thrown into as many caldrons of boiling water. In 1202 he defeated and killed Vang Khan himself,

known to the Europeans by the name of *Prester John of Asia*; and possessing himself of his vast dominions, became thenceforth altogether irresistible. In 1206, having still continued to enlarge his dominions, he was declared khan of the Moguls and Tartars, and took upon him the title of *Genghiz Khan*, or *The Great Khan of Khans*. This was followed by the reduction of the kingdom of Hya in China, Tangut, Kitay, Turkestan, Karazm (the kingdom of Gazna, founded by Mahmud Gazni), Great Bukharia, Persia, and part of India; all of which vast regions were reduced in twenty-six years. The devastations and slaughters with which these conquests were accomplished are unparalleled, no fewer than 14,470,000 persons being computed to have been massacred by Genghiz Khan during the last twenty-two years of his reign. In the beginning of 1227 he died, thereby freeing the world from a most bloody tyrant. His successors completed the conquest of China and Korea, but were foiled in their attempts on Cochin-China, Tong-king, and Japan. On the western side the Tartar dominions were not much enlarged till the time of Hulaku, who conquered Media, Babylonia, Mesopotamia, Assyria, Syria, Georgia, Armenia, and almost all Asia Minor; putting an end to the empire of the Saracens by the taking of Bagdad in 1258.

The empire of Genghiz Khan shared the fate of all others. Being far too extensive to be governed by one head, it split into a multitude of small kingdoms, such as had existed before his time. All the princes of these, however, owned allegiance to the family of Genghiz Khan till the time of Timur Beg, or Tamerlane. The Turks, in the mean time, urged forward by the inundation of Tartars, who poured in from the East, were forced upon the remains of the Greek empire; and, at the time of Tamerlane above mentioned, they had almost confined this once mighty empire within the walls of Constantinople.

In the year 1335 the family of Genghiz Khan having become extinct in Persia, a long civil war ensued, during which Timur Beg, one of the petty princes among whom the Tartar dominions were divided, found means to aggrandise himself in a manner similar to that in which Genghiz Khan had done about a hundred and fifty years before. Genghiz Khan, indeed, was the model whom he proposed to imitate; but it must be allowed that Timur was more merciful, if indeed the word can be applied to such inhuman tyrants. The plan on which Genghiz Khan had conducted his expeditions was that of total extermination. For some time he utterly extirpated the inhabitants of those places which he conquered, designing to people them anew with his Moguls; and, in consequence of this resolution, he employed his army in beheading a hundred thousand prisoners at once. Timur's cruelty, on the other hand, seldom went farther than the pounding of three or four thousand people in large mortars, or building them amongst bricks and mortar into a wall. We must observe, however, that Timur was not a deist, but a Mahomedan, and conquered expressly for the purpose of spreading the Mahomedan religion; for the Moguls had now adopted all the superstitions and absurdities of Islamism. Thus the eastern part of the world was threatened anew with the most dreadful devastations, whilst the western nations were exhausting themselves in fruitless attempts to recover the Holy Land. The Turks were the only people who seem at this period to have been gathering strength, and who, by their perpetual encroachments, threatened to swallow up the western nations, as the Tartars had done those of the East.

In 1362 Timur invaded Bukharia, which he reduced in five years, and proceeded in his conquests, though not with the same celerity as Genghiz Khan, till the year 1387, when he had subdued all Persia, Armenia, Georgia, Karazm, and the greater part of Tartary. After this he

Civil
History.

Civil
History.

advanced westward, subduing all the countries as far as the Euphrates, made himself master of Bagdad, and even entered Russia, where he pillaged the city of Moscow. He then turned his arms to the East, and totally subdued India. In 1393 he invaded and reduced Syria; and having turned his arms against the Turks, he forced their sultan Bajazet to raise the siege of Constantinople. This brought on an engagement, in which Bajazet was entirely defeated and taken prisoner; an event which so broke the power of the Turks, that they were not for some time able to recover themselves. At last this great conqueror died in the year 1405, whilst on his way to conquer China, as Genghiz Khan had done before him.

The death of Timur was followed almost immediately by the dissolution of his empire, and most of the nations which he had conquered recovered their liberty. The Turks had now no further obstacle to their conquest of Constantinople. The western nations having exhausted themselves in the Holy Wars, as they were called, had now lost that insatiable thirst of conquest which so long possessed the minds of men. They had already made considerable advances in civilization, and begun to study the arts of peace. Gunpowder was invented, and its application to the purposes of war already known; and, although no invention threatened to be more destructive, perhaps none has ever proved more beneficial to the human race. By the use of fire-arms, nations are placed more on a level than they formerly were; and war is reduced to a regular system, which must be studied with as much care as any other science. Conquests are not now to be made with the same ease as formerly; the defensive force of states has been increased; and hence latterly the world has been much more peaceable and tranquil than in former ages. In 1453 the conquest of Constantinople by the Turks fixed that wandering people to one place; and though they long possessed extensive dominions in Europe, in Asia, and in Africa, an effectual stop has long been put to their further progress, and their power is now rapidly declining.

About this time, also, learning began to revive in Europe, where it had long been lost; and the invention of printing, which happened about the same time, rendered it in a manner impossible for barbarism ever again to recover its ancient empire. All the nations of the world, indeed, seem now to have laid aside much of their former ferocity; and, although wars have been by no means uncommon, these have not been carried on with such circumstances of atrocity and cruelty as before. Instead of attempting to enrich themselves by the spoils of their neighbours, mankind have in general applied themselves to commerce, the only true and durable source of riches. This soon produced improvements in navigation, which again led to the discovery of many regions formerly unknown. At the same time, the European powers, being at last thoroughly sensible that extensive conquests could never be permanent, applied themselves rather to provide for the security of the dominions which they already possessed, than to attempt the conquest of one another; and this produced the policy to which so much attention was subsequently paid, namely, that of preserving the balance of power in Europe, or preventing any one nation from acquiring sufficient strength to overpower another.

In the end of the fifteenth century the vast continent of America was discovered; and, almost at the same time, Vasco de Gama opened the passage to the East Indies by the Cape of Good Hope. The discovery of these new regions gave a new turn to the ambition of the Europeans. To enrich themselves by the gold and silver produced in these countries, or by traffic with the natives, now became the object of the more adventurous and en-

terprising. The Portuguese had the advantage of being the first discoverers of the countries in the eastern, and the Spaniards in the western hemisphere. Nor did the former neglect so favourable an opportunity of enriching themselves by commerce. Many settlements were formed by them in the East India islands, and on the continent; but their avarice and perfidious behaviour towards the natives proved at last the cause of their total expulsion. The Spaniards enriched themselves by the vast quantities of the precious metals imported from America, but which were only obtained by the most horrid massacres committed on the natives. The possessions of the Spaniards and Portuguese soon excited other European nations to make attempts to share with them in their treasures, by planting colonies in different parts of America, and effecting settlements in the East Indies; and thus the rage of war was in some measure transferred from Europe to these distant regions, whilst, after various contests, the British at last obtained a great superiority both in America and the East Indies.

The revolutions which took place in Europe during this period were, some of them, productive of important results. The total expulsion of the Moors and Saracens from Spain followed the capture of Granada in 1491. The fall of their capital terminated the long struggle which they had maintained to preserve a footing in the country to which they were so much attached; and the barbarous act which consummated their overthrow (an act highly characteristic of the age, though equally at variance with sound policy and common humanity) recoiled on the victorious perpetrators, by annihilating art, destroying industry, and extinguishing the light of science in the Peninsula. Spain felt severely the shock occasioned by the expulsion of this people, amongst whom knowledge and refinement had made considerable advances; but, on the other hand, the union of Aragon and Castille by the marriage of Ferdinand and Isabella formed the first step towards the consolidation under one monarchy, of the different petty kingdoms into which the country was divided, and laid the foundation of that power and ascendancy which, in less than a century, Spain acquired amongst the nations of Europe. Her advancement was rapid, and, in the brilliant reign of Charles V., she reached the zenith of her glory. But at this culminating point of splendour and power she was not destined to remain, even for a short period, stationary; for the sun of her glory, having passed his meridian, began immediately to decline in the quarter opposite to that in which he had arisen. Philip, the son and successor of the emperor, unable to wield the power which had been committed to his hands, misgave in all his enterprises; and whilst the spirit of the nation was humbled by his reverses, its resources were exhausted by the obstinate but ill-directed efforts made to repair them. The blow, however, which fell most heavily on the power of Spain was the revolt of the states of Holland. The Dutch, animated by that spirit of liberty which commerce always inspires, and driven to despair by a ruthless and implacable despotism, which attempted to impose its fetters on the mind as well as the body, rose in arms against their oppressors, and, after a sanguinary struggle, most unequal in its commencement but glorious in its results, they conquered their independence, and were, in the year 1609, declared a free people. Thus Spain lost the brightest jewel in its crown, freedom gained a new ally, and the despots of Europe were taught the important lesson that nothing is impossible for a brave people who have resolved, at all hazards, to establish their liberty.

In Asia nothing of importance had occurred since the capture of Constantinople by the Turks. Comparative tranquillity reigned throughout that vast continent, which had so often been the theatre of violent revolutions, sud-

Civil
History.

den conquests, and mushroom empires. Siberia had fallen under the dominion of Russia. To the southward, from Asia Minor to China and Corea, the Tartars roamed through their inhospitable deserts, formidable, indeed, by their numbers, but, from their disunion and barbarism, no longer capable of pouring in overwhelming masses on the nations of the East or of the West. The Turks possessed the western part of the continent, or Asia Minor, as far as the river Euphrates, which formed their boundary on the east. The Arabs were again confined within their own peninsula, which they possessed, as they had ever done, without owning subjection to any foreign power, in a state of wild independence. Contiguous to Turkey on the east lay Persia, now more restricted in its limits than before, but still powerful; whilst India, destined ere long to change masters, and yield to the supremacy of European arts and arms, slumbered under the dominion of the Mogul. Of the countries still farther to the east little was as yet known to the nations of the west; but an era of more active enterprise and daring adventure was rapidly approaching. The vast empire of China, occupying the most easterly portion of the Asiatic continent, enjoyed, as before, an almost entire immunity from revolution, or, if visited by a Tartar inroad, soon absorbed the invaders into its own vast mass, without the least disturbance to its laws, its institutions, or its government, or any other change than that of a dynasty or a name.

In Africa, the Turks possessed Egypt, which they had conquered in 1517, though by a very insecure tenure, and exercised a sort of nominal jurisdiction over the Barbary states, the principal of which, Algiers, has at length been subdued and converted into a troublesome colonial dependency of France. Of the barbarous nations who occupied the interior little or nothing was as yet known. On the western coast the British and Portuguese had established settlements; and the southern extremity was occupied by the Dutch, who were at length dispossessed by the British, when the latter found it necessary, for the security of their power in India, to occupy that advanced position in the Southern Ocean. The eastern coasts remained almost wholly unknown; whilst the Asiatic and African islands were either possessed by Europeans, or inhabited by savage tribes.

The European nations, at the beginning of the seventeenth century, were Britain, France, Holland, Spain, Portugal, Italy, Turkey in Europe, and in the north and east Germany, Poland, Russia, Sweden, and Denmark. Of these, Russia, though the most barbarous, was nevertheless, in point of territory and population, by far the most considerable; but the situation of that power, at a distance from the centre of European policy and civilization, the poverty of its resources, the unsettled nature of its government, the rude and sluggish character of its population, immersed in profound ignorance and grovelling superstition, and, above all, its state of political isolation, rendered it in no respect formidable to other nations, and, in fact, made it be, in a great measure, overlooked in adjusting the balance of power in Europe. The kingdom of Poland, which had existed for upwards of six centuries, proved a barrier between Russia and Germany; it formed, as it were, the frontier defence of the nations of the south and west of Europe, to which it was naturally allied by a community of civilization, against the inroads of the northern barbarians, its immediate and natural enemies; it seemed established by Providence, in short, as a powerful advanced guard for the protection of Central Europe on the side where it was weakest and most easily assailable. As long, therefore, as the necessity of maintaining a balance of power entered into the calculations of cabinets, it might have been supposed, that, whatever wars Europe might be engaged in, and whatever changes of territory might in con-

sequence be effected, the most obvious views of interest, of policy, and even of self-defence, would have recommended the preservation of a kingdom, which, both from its peculiar situation, and from the high and chivalrous character of its people, formed, or at least should have formed, an important element in the European system. So far from this, however, Poland was first dismembered, and afterwards destroyed. Whilst the cupidity of Austria and Prussia was appeased by a share of the spoil, Russia attained the first object of her ambition by the removal of the grand obstacle which had hitherto prevented her from interfering in the affairs of the Continent; the equilibrium of power was entirely destroyed; and the other nations of Europe tamely acquiesced in a change of system, all the consequences of which have not yet been foreseen. The immediate results of this great public crime are matters of universal notoriety. Russia, elevated at once to the rank of a first-rate power, has attained an ascendancy in continental affairs, and, by means of systematic encroachments, has at length so completely humbled Turkey, that the period is not very distant when she will attempt to transfer the seat of her empire from Petersburg to Constantinople. Her ambitious designs were all along of the most grasping and comprehensive character; but as these were slowly and cautiously developed, at times and seasons most favourable for their advancement, her artful and insidious policy excited no suspicion or alarm until it was almost too late to check, far less to arrest, her career. It remains to be seen how far the other powers of Europe may yet have cause to regret the passive indifference with which they so long regarded the progressive aggrandisement of an empire, which already seems to aim at universal dominion, and the influence of which is now felt from the Indus to the Bosphorus.

The wars of the eighteenth century were not productive of any great or memorable changes, until the successful revolt of the British colonies in North America issued in the establishment of their independence. This important event, which gave birth to a kindred nation on the other side of the Atlantic, and laid the foundation of liberty in the New World, was generally regarded by the enemies of Britain as a fatal shock to her power and wonted superiority; and France, in assisting the colonies to conquer their independence, no doubt imagined that she was contributing in the most effectual manner to humble her ancient and formidable rival. But the result has shown that all such expectations were founded on error. The colonies, it is true, were disjoined from the mother country, and formed into an independent nation, which is now advancing with rapid strides in wealth, in power, and in greatness, and which is certainly destined, at no very distant date, to form one of the mightiest communities of freemen on the face of the earth. But Great Britain has had no cause to lament the separation, or to repine at their prosperity. Divested only of a splendid encumbrance, an expensive and invidious appanage, she has been left at liberty to reap the undivided benefits of her native vigour, to display new energies, to extend her industry and enterprise, and, in the profits of an active commerce with a great and rising nation, to indemnify herself for the barren distinction of maintaining unproductive establishments beyond the Atlantic. The separation, in fact, has proved equally advantageous to both parties. To America it formed the commencement of a career of prosperity unexampled in the history of nations, and of which it is yet impossible to foresee the full development; whilst Britain, relieved from a burden that exhausted her strength and crippled her vigour, started with fresh vigour in the race of improvement, and rose rapidly in greatness and power after the event which shortsighted

Civil
History.Civil
History.

politicians had considered as the forerunner of her humiliation and decay. Every addition made to the great community of free nations is in fact a common benefit to all.

On the other hand, the flame which, it was thought, would scorch Britain, soon blazed out with consuming violence in the bosom of her principal foe. The course of time, and, above all, the accumulated evils of ages of tyranny and misgovernment, had long been silently preparing in France those combustible elements which sooner or later explode in political convulsions. In the old system there was no self-correcting or regenerative principle; despotism can never stop short in its career, far less retrace its steps; its character is to persevere, its progress is from bad to worse. It is only by passing through a course of revolution, perhaps through anarchy, that long-lost liberty can be recovered, and the dominion of equal laws established; and to this transition every thing now tended in France. All the props of the old system were either undermined or decayed; the state of opinion and knowledge had prodigiously outrun a government which existed only on the recollections of the past; religion, having degenerated into superstition, had lost its hold on the public mind; free discussion had given rise to a new set of opinions, and bold doctrines were boldly promulgated; the decay of the finances weakened the power of the state, and whilst the country groaned under every sort of abuse, odious privileges inflamed the resentment of the people. In short, a crisis of the most tremendous description was evidently preparing; and it is probable enough that those who had served an apprenticeship to liberty in America, were not backward, on their return to their own country, in endeavouring to set up for themselves. Be this as it may, however, the crisis arrived even more speedily than could have been expected, and a constitution, extorted from the court, was at first thankfully received by the nation. But it is not of the nature of such political revulsions to stop short with a partial success. The re-action was too violent to be arrested after the first recoil, and soon swept away those who had vainly attempted to control and regulate it. The monarchy was overthrown, and in its fall dragged down the degenerate and corrupt church on which it had leaned for support. Anarchy for a season reigned in tumultuous and sanguinary supremacy. The prisons were crowded with victims, the scaffolds were drenched with gore. But victory declared in favour of the republic; and whilst torn by the violence of faction within, her arms were triumphant on the frontiers, and latterly both Germany and Italy were humbled at the feet of a government, the offspring of anarchy and revolution. Prussia, after suffering severe humiliation, withdrew early from the contest with France, to repair the injuries she had sustained, and brook in silence her disgrace. Austria, stimulated by British counsels, and subsidised by British gold, persisted longer, but was ultimately compelled, by the advance of a victorious army within a few marches of her capital, to submit to the law of the conqueror. Britain, triumphant on the ocean, still maintained an attitude of defiance; but seeing her allies struck down and humbled, she eventually concluded a peace, or at least a truce, with the new republic.

The shock produced by this contest was quite unprecedented. The impulse of the Revolution had proved irresistible, especially on the Continent. Marengo had decided the fate of Italy, which was in consequence wrenched from the grasp of Austria, whilst that power had almost simultaneously received a severe body blow at Hohenlinden. France having obtained the Rhine as her boundary, threatened Germany, and necessarily acquired an ascendancy over the smaller states along the river, as well as those interposed between that limit and the hereditary

dominions of Austria. Naples was effectually humbled, and the power of the pope as a temporal sovereign almost annihilated. In a word, France had become lord of the ascendant on the Continent. But the Revolution had already passed the term of its ascending movement; the fiery impulse of republicanism had nearly exhausted itself. Napoleon became the heir of all that the Revolution had created; and the consulate had superseded the directorial government, to give way in its turn to the empire. It is unnecessary to retrace here the course of events, which have been fully detailed in the articles *BRITAIN* and *FRANCE*. A military despotism was reared on the ruins of the republic, and for a time the genius and fortune of Napoleon proved irresistible. Coalition after coalition was formed under the auspices of Britain; but each in its turn was dissolved, and in its overthrow served only to aggravate the humiliation of the states of the Continent, and in the same proportion to augment the power of France. Austria was compelled to receive the law of the conqueror; Prussia, which had acted with equal faithlessness to her allies and her enemy, was at Iena almost blotted from the map of Europe; whilst Russia, defeated amidst the snows of Eylau, concluded a peace with the victor of Friedland. Soon afterwards another effort was made by Austria to check the career of the conqueror, but without success. But the doubtful advantage of Essling was effectually obliterated by the decisive victory of Wagram; and Germany was once more placed at the feet of Napoleon, to whom the vista of universal dominion now presented itself in all its illusive magnificence. This indeed was the marsh-fire which led him on to his destruction. The disastrous result of the expedition to Russia sealed his doom. The elements warred against him; and that mighty host which overwhelmed all armed opposition, being breathed upon by the frosty North, perished in the Russian deserts. All that genius and energy could achieve to repair this calamity was done, but in vain. Napoleon's hour was come, and he yielded to his destiny. Another astonishing effort to retrieve his fortunes, made in circumstances without a parallel in the history of nations, had no better success, and at Waterloo this wonderful man saw his last hope extinguished.

Thus the old monarchies of Europe, after a long and disastrous struggle, were once more victorious. They had contrived to awaken in their favour the patriotism of the people of the Continent; by promises of free constitutions, they had led, not armies, but nations, against their common enemy. In the intoxication of success, however, they forgot all the stipulations they had made during the agony of the struggle. The obligations they had come under to their people were disregarded; the division of the spoil alone occupied their attention. France saw herself reduced to her ancient limits, with an army of observation quartered on her soil. Austria recovered her ascendancy in Italy; Genoa was handed over to the king of Sardinia; Saxony was dismembered to gratify the rapacity and revenge of Prussia; the third and fourth-rate states of Germany, which had accepted the alliance of France, were humbled; a new Germanic Confederation was organized under the auspices of Austria and Prussia; a shadow of independence was, with a cruel mockery, conferred on the duchy of Warsaw, a miserable remnant of what had once been the kingdom of Poland, and Russia was constituted the protectress thereof, on the same principle that the foolish shepherds intrusted the guardianship of their fold to the hypocritical but voracious wolf; and, lastly, a Holy Alliance was organized, for the purpose of repressing the slightest manifestation of a free spirit in any nation or state of the Continent. For the time, the principle of despotism was surrounded by the glare of recent triumph, enthroned amidst the shouts of victorious legions, and all-powerful for the repression of any attempt to secure the performance of

Civil
History.

those promises on the faith of which the nations had risen in arms to overthrow Napoleon. In Spain, in Naples, and in Piedmont, the constitution of the Cortes, which the allies had themselves sanctioned, was scarcely proclaimed, when the armies of the holy alliance, of France and of Austria in particular, marched to re-establish the old despotisms, and to extinguish constitutional liberty in both peninsulas.

But a short period wrought a wonderful change in the sentiments of men and in the prospects of nations. The government of Britain, which can never long act in opposition to public opinion, first withdrew from all connexion with, and ultimately declared pretty unequivocally against, the confederacy of despots formed for the extinction of liberty. A general re-action took place, and this was aided by a number of circumstances propitious to the popular cause. In South America the contest for independence continued steadily progressive, and excited deep sympathy in Europe. In Greece the sacred flame also burst forth, and, though at times nearly extinguished by the exterminating fury of the Moslem hordes, was constantly rekindled, and fanned up afresh, until at length that glorious country, the parent of the noblest form of civilization that existed in the ancient world, has been added to the great community of free and independent nations. A new era now opened upon the world. Throughout all Europe there thrilled one common feeling in favour of liberty, accompanied by an ardent desire of political improvement. An impulse had been silently given, which nothing has yet been able to check, far less withstand, and which, we have no doubt, will ultimately overcome all opposition. Even Turkey felt its force, and, under the auspices of the successor of the Prophet himself, commenced the work of reform. In France, in Britain, in Spain, and in Portugal, the working of this spirit has been signally illustrated, and in different degrees crowned with success. Nearly contemporaneous with the third expulsion of the elder branch of the house of Bourbon from the throne of France, and the re-establishment of constitutional liberty in that country, was the great but bloodless revolution effected in Britain by the passing of the Reform Act, which, with all its defects, is one of the greatest securities for good government which this nation has ever obtained. No sooner had France disencumbered herself of the burden of an antiquated dynasty, which even the severe lessons of adversity had failed to enlighten, instruct, or amend, than Belgium, profiting by the example, cast off the yoke of Holland, and declared herself independent. In Portugal the expulsion of a cruel and perfidious usurper has been followed by the re-establishment of that constitution which he solemnly swore to maintain, and immediately thereafter trampled under foot; and Spain, under a new sovereign and an altered law of succession, though exposed to all the horrors and miseries of a civil war, continues firm in her adherence to those principles which can alone secure the social happiness and improvement of her still noble and generous people. In a word, the progressive advancement of knowledge amongst the nations is now producing its natural fruits; and though some of them are still in a state of transition, whilst in others the despotic principle continues to be an overmatch for its redoubtable antagonist; though Poland lies bleeding and lacerated in the clutches of Russia, and Germany bristles with bayonets, ready to pierce any who should dare to hoist the banners of liberty; yet there can be little doubt that the period of their deliverance is not distant, that the kingdom of Poland will ere long be reconstituted, and that grave and learned Germany will soon be free.

The principal difficulty of modern politics consists in the state of affairs in the East, or, in other words, in the peculiar relations of Russia and Turkey. The ambitious

designs of the former power have long ceased to be doubtful, and, though cautiously pursued, they are in themselves of the most daring and comprehensive character. But although the weakness of the latter has been painfully exemplified, and although some errors of policy on the part of Britain and of France gave to Russia an advantage which she was not slow in profiting by, there seems to be no good ground for the apprehension and alarm which some profess to entertain upon this subject. For, besides the direct interposition of Britain and France, Egypt, which has proved under its victorious viceroy so instrumental in humbling the Porte, would, in the event of another war with Russia, become the natural and powerful ally of the Sultan; the interests of the new state of Greece would also lead the government of that country to make common cause against a power which sought to obtain an ascendancy in the Mediterranean; and, what is more important than all, the boom of the first cannon-shot fired in a general war in Europe would announce to the nations the re-establishment of the kingdom of Poland. Nor is even this all. For if, as is well known, Austria already feels uneasy on account of the number of the points of contact between her dominions and those of Russia, to whose encroaching and aggrandising spirit she is no stranger, it is scarcely to be imagined that she would remain a silent spectator of any aggression which, if successful, would as it were envelope her in the coils of the great northern serpent, and enable that hideous snake to crush her at his leisure. Whilst the policy of nations is governed by a regard to their interest and their safety, these causes must continue to operate. Besides, there is a point beyond which aggression is the first step to destruction; and, in our estimation, Russia has already approximated closely, if she has not actually reached that ultimate term. Her resources are not equal to a great and sustained effort; and though her power, statistically considered, is formidable, it suffers great abatements before it can be displayed in action. This all her campaigns have illustrated; and this she has herself tacitly confessed, by trusting more to her able but insidious diplomacy than to the force of arms, which some imaginative alarmists regard as so irresistible.

II. ECCLESIASTICAL HISTORY.

The history of religion amongst the different nations of the world is a subject no less important and interesting than that of civil history. It is, however, less fertile of great events, affords an account of fewer revolutions, and is much more uniform. The reason of this is obvious. Religion is conversant about things which cannot be seen, and which consequently cannot suddenly and strongly affect the senses of mankind. The expectation of worldly riches may easily induce one nation to attack another; but it is not easy to find out any thing which will induce a nation to change its religion. The invisible nature of spiritual things, and the prejudice of habit and of early education, all stand in the way of changes of this kind. Hence revolutions in religion have been but few, and the duration of almost every religion has been of longer standing than the most celebrated empires; the changes which happened have, in general, required a long time to bring them about, and history scarcely affords an instance of the religion of any nation being essentially and suddenly changed.

With regard to the origin of religion, we must have recourse to the Scriptures, and adopt the account there given, because no other has made its appearance which seems in any degree rational, or consistent with itself. In what manner the true religion given to Adam was falsified or corrupted by his descendants before the Flood,

Ecclesiastical
History.

Idolatry does not clearly appear. Idolatry is not mentioned, yet we are nevertheless assured that the inhabitants of the world were then exceedingly wicked; and as their wickedness did not consist in worshipping false gods, it may be concluded that they worshipped none at all, or that the crime of the antediluvians was deism or atheism.

After the Flood, idolatry quickly made its appearance; but what gave rise to it is not certainly known. This form of superstition indeed seems to be natural to man, especially when placed in such a situation as affords him little opportunity of instruction, or of improving his rational faculties. Such a conclusion may be deduced from the caution given to the Jews, lest, when they looked up to the sun, moon, and stars, and the rest of the host of heaven, they should be driven to worship them. The origin of idolatry amongst the Syrians and Arabians, and also in Greece, is therefore accounted for with reference to their situation and the general aspect of nature. In those uncomfortable deserts, where the day presents nothing to the view but the uniform, tedious, and melancholy prospect of barren sands, the night discloses a most delightful and magnificent spectacle, and appears arrayed with charms of the most attractive kind. For the most part unclouded and serene, it exhibits to the wondering eye the host of heaven in all their variety and glory. In the view of this stupendous scene, the transition from admiration to idolatry was but too easy to uninstructed minds; and a people whose climate offered no beauties to contemplate but those of the firmament, would naturally look thither for the objects of their worship. The form of idolatry in Greece was different from that of the Syrians, which perhaps may be attributed to that smiling and variegated scene of mountains, valleys, rivers, woods, groves, and fountains, which the transported imagination, in the midst of its pleasing astonishment, supposed to be the seats of invisible deities.

A difficulty, however, arises on this supposition; for if idolatry is naturally produced in the mind of uninstructed and savage man from a view of the creation, why has not idolatry of some kind or other existed amongst all the different nations of the world? This certainly has not been the case, for the Persians of old, and the Moguls in modern times, were not idolators. Both these nations professed strict deism, so that some other causes must have concurred in producing idolatry besides those already mentioned; and of these causes an imperfect and obscure notion of the true religion appears to be by far the most probable.

Though idolatry, therefore, was formerly prevalent, it neither extended over the whole earth, nor were the superstitions of idolators all of one kind. Every nation had its respective gods, over which one more excellent than the rest was said to preside; yet in such a manner that this supreme deity himself was controlled by the rigid empire of the fates, or by what philosophers denominate eternal necessity. The gods of the East were different from those of the Gauls, the Germans, and the other northern nations. The Grecian divinities differed from those of the Egyptians, who deified plants, animals, and a great variety of the productions both of nature and art. Each people also worshipped and appeased their respective deities in a manner entirely different from the sacred rites of other countries. All this variety of religions, however, produced neither wars nor dissensions amongst the different nations; and each nation suffered its neighbours to follow their own method of worship, without discovering any hostility on that account. But there is nothing surprising in this mutual toleration, when we consider that they all looked upon the world as one great empire, divided into various provinces, over each of which a certain order of divinities presided; and hence

they imagined that none could behold with contempt the gods of other nations, or force strangers to pay homage to theirs. The Romans exercised this toleration in the most ample manner; for though they would not allow any change to be made in the religions which were publicly professed in the empire, nor any new form of worship to be openly introduced, yet they granted to their citizens a full liberty of observing in private the sacred rites of other nations, and of honouring such foreign deities as they thought worthy of their homage.

The heathen deities were honoured with rites and sacrifices of various kinds, according to their respective natures and offices. But their rites were absurd and their observances ridiculous; whilst the priests appointed to preside over this strange worship abused their authority, by imposing upon the people in the grossest manner.

From the time of the Flood till the coming of Christ, idolatry prevailed amongst almost all the nations of the world, the Jews alone excepted; and even they were on all occasions ready to fall into it, as is evident from their history in the Old Testament. At the time of Christ's appearance, the religion of the Romans, as well as their empire, extended over a great part of the then known world. There were amongst the heathens indeed some who perceived the absurdities of that system; but being destitute of means, as well as of ability, to effect a reformation, matters went on in their old way. Though there were at that time various sects of philosophers, yet all of them proceeded upon false principles, and consequently could be of no service to the advancement or reformation of religion. Nay, some, amongst whom were the Epicureans and Academics, declared openly against every kind of religion.

At this time two religions flourished in Palestine, the Jewish and Samaritan, between the respective followers of which there reigned the most violent hatred and contempt. The difference between them seems to have been chiefly about the place of worship, which the Jews contended should be in Jerusalem, and the Samaritans on Mount Gerizzim. But though the Jews were certainly right as to the locality, they had in other respects greatly corrupted their religion. They expected a Saviour indeed; but they mistook his character, imagining that he was to be a powerful and warlike prince, who should set them free from the Roman yoke, which they bore with the utmost impatience. They also conceived that the whole of religion consisted in observing the rites of Moses, and some others which they had added to these, without the least regard to what is commonly called morality or virtue. This seems evident from the many charges which our Saviour brings against the Pharisees, who had the greatest reputation for sanctity in the whole nation. To these corrupt and vicious principles they added several absurd and superstitious notions concerning the divine nature, invisible powers, magic, and the like, which they had partly imbibed during the Babylonian captivity, and partly derived from their neighbours in Arabia, Syria, and Egypt. The principal sects amongst them were the Essenes or Essenians, Pharisees, and Sadducees. The Samaritans, according to the most general opinion, had corrupted their religion still more than the Jews.

Hence, when the true religion was preached by the Saviour of mankind, it is not to be wondered at if he became on that account obnoxious to a people so deeply sunk as the Jews then were in corruption and ignorance. It is not requisite here to enter into the particulars of the doctrine advanced by him, or of the opposition which he met with from the Jews. The rapid progress of the Christian religion, under its faithful and inspired ministers, soon alarmed the Jews, and raised various persecutions against its followers. The Jews, indeed, appear at first to have

Ecclesiastical History.

been everywhere the chief promoters of persecution. We find indeed that they officiously went from place to place, wherever they heard of the increase of the gospel, and by their calumnies and false suggestions endeavoured to excite the people against the apostles. The Heathens, however, though at first they showed no very violent spirit of persecution against the Christians, soon came to hate them as much as the Jews themselves. Tacitus acquaints us with the cause of this hatred, when speaking of the first general persecution under Nero. That inhuman emperor having, as was supposed, set fire to the city of Rome, to avoid the imputation of this wickedness, transferred the odium of the atrocious act to the Christians. The historian informs us that they were already abhorred on account of their many and enormous crimes. "The author of this name (Christians)," says he, "was Christ, who, in the reign of Tiberius, was executed under Pontius Pilate, procurator of Judæa. The pestilent superstition was for a while suppressed; but it revived again, and spread, not only over Judæa, where this evil was first broached, but reached Rome, whither is constantly flowing from every quarter of the earth whatever is hideous and abominable amongst men, and where it is readily embraced and practised. First, therefore, were apprehended such as openly avowed themselves to be of that sect; then by them were discovered an immense multitude; and all were convicted, not of the crime of burning Rome, but of hatred and enmity to mankind. Their death and tortures were aggravated by cruel derision and sport; for they were either covered with the skins of wild beasts, and torn in pieces by devouring dogs, or fastened to crosses, or wrapped up in combustible garments, that, when the day-light failed, they might, like torches, serve to dispel the darkness of the night. Hence, towards the miserable sufferers, however guilty and deserving of the most exemplary punishment, compassion arose, seeing they were doomed to perish not with a view to the public good, but to gratify the cruelty of one man."

That the account here given by Tacitus is downright misrepresentation and calumny, must be evident to every one who reads it. It is impossible that any person can be convicted of hatred and enmity to mankind, without specifying the facts by which this hatred showed itself. The burning of Rome would indeed have been a very plain indication of enmity to mankind; but of this Tacitus himself clears them, and mentions no other crime of which they were guilty. It is probable, therefore, that the only reason of this charge against the Christians, was their absolute refusal to have any share in the Roman idolatrous worship, or to countenance in any degree the absurd superstitions of Paganism.

The persecution under Nero was succeeded by another under Domitian, during which the apostle John was banished to Patmos, where he saw the visions, and wrote the book called the Apocalypse, which completes the canon of Scripture. This persecution commenced in the ninety-fifth year of the Christian era; and John is supposed to have written his Revelation the year after, or in the one that followed.

During the first century, the Christian religion spread over a great number of different countries; but as we have now no authentic records concerning the travels of the apostles, or the success which attended their ministry, it is impossible to determine how far the gospel was carried during this period. We are, however, assured, that even during this early period many corruptions were creeping in, the progress of which was with difficulty prevented even by the apostles themselves. Some corrupted their profession by an intermixture of Judaism, others by blending it with the oriental philosophy; whilst others, again, were already attempting to deprive their brethren of li-

berty, setting themselves up as eminent pastors, in opposition even to the apostles, as we learn from the epistles of St Paul, and the third epistle of St John. Hence arose the sects of the Gnostics, Cerinthians, Nicolaitans, Nazarenes, Ebionites, and many others, with which the church was troubled during this century.

Concerning the ceremonies and method of worship used by the Christians of the first century it is impossible to state any thing with certainty. Neither has the church order, government, and discipline, during this period, been ascertained with any degree of exactness. Each of those parties, therefore, which exist at this day, contends with the greatest earnestness for that particular mode of worship which they themselves have adopted; and some of the most bigoted would willingly monopolize the word Church in such a manner as to exclude from all hope of salvation every one who is not attached to their particular party. It does not, however, appear that, excepting baptism, the Lord's Supper, and anointing the sick with oil, any external ceremonies or symbols were properly of divine appointment. According to Dr Mosheim, there are several circumstances which seem to indicate that the friends and apostles of our blessed Lord either tolerated through necessity, or appointed for wise reasons, many other external rites in various places. "At the same time we are not to imagine that they ever conferred upon any person a perpetual, indelible, pontifical authority, or that they enjoined the same rites in all churches. We learn, on the contrary, from authentic records, that the Christian worship was from the beginning celebrated in a different manner in different places; and that, no doubt, by the orders, or at least with the approbation, of the apostles and their disciples. In those early times, it was both wise and necessary to show, in the establishment of outward forms of worship, some indulgence to the ancient opinions, manners, and laws, of the respective nations to whom the gospel was preached."

The second century commences with the third year of the Emperor Trajan. The Christians were still persecuted; but as the Roman emperors of this century were for the most part princes of a mild and moderate temper, they persecuted less violently than formerly. Marcus Aurelius, notwithstanding the clemency and philosophy for which he is so much celebrated, treated the Christians worse than Trajan, Hadrian, or even Severus himself, who was noted for his cruelty. This respite from rigorous persecution proved a favourable circumstance for the diffusion of the Christian religion; yet it is by no means easy to point out the particular countries through which it had already spread. We are, however, assured, that in the second century, Christ was worshipped as God throughout almost the whole East, as also amongst the Germans, Spaniards, Celts, and many other nations; but which of them received the gospel in the first century, and which in the second, is a question which at this distance of time cannot be satisfactorily determined. The writers of this century attribute the rapid progress of Christianity chiefly to the extraordinary gifts which were imparted to the first Christians, and the miracles which were wrought at their command; without supposing that any part of the success ought to be ascribed to the intervention of human means, or secondary causes. Many of the moderns, however, are so far from being of this opinion, that they are willing either to deny the authenticity of all miracles said to have been wrought since the days of the apostles, or to ascribe them to the power of the devil. But to enter into the particulars of this controversy is foreign to our present purpose; and for this reason we must refer to the writers on polemical divinity, who have largely treated of this and other points of a similar nature.

The corruptions which had been introduced in the first

Ecclesiastical History.

Ecclesiastical History.

century, and which were almost coeval with Christianity itself, continued to gain ground in the second. Ceremonies, in themselves futile and useless, but which must be considered as highly pernicious when joined to a religion incapable of any other ornament than the upright and virtuous conduct of its professors, were multiplied for no other purpose than to please the ignorant multitude. The immediate consequence of this was, that the attention of Christians was drawn aside from the important duties of morality; and they were led to imagine, that a careful observance of the ceremonies might make amends for the neglect of moral duties. This was the most pernicious opinion which could possibly be entertained; and was indeed the very foundation of that enormous system of ecclesiastical power which was afterwards organized, and which for many ages held the whole world in barbarism and slavery.

Another mischief was the introduction of *mysteries*, as they were called, into the Christian religion; that is, insinuating that some parts of the worship in common use had a hidden efficacy and power far superior to the plain and obvious meaning assigned to them by the vulgar. By paying peculiar respect to these mysteries, the pretended teachers of the religion of Jesus accommodated their doctrines to the taste of their heathen neighbours, whose religion consisted in a multitude of mysteries, of which nobody knew the meaning.

By these, and other means of a similar description, the Christian pastors greatly abridged the liberty of their flocks. Being masters of the ceremonies and mysteries of the Christian religion, they had it in their power to make their followers believe and worship whatever they might think proper; and this they did not fail to make use of for their own advantage. They persuaded the people that the ministers of the Christian church succeeded to the character, rights, and privileges, of the Jewish priesthood; and the bishops considered themselves as invested with a rank and character similar to those of the high priest amongst the Jews, whilst the presbyters represented the priests, and the deacons the Levites. This notion, which was first introduced in the reign of Hadrian, proved a source of considerable honour and profit to the clergy.

The form of ecclesiastical government was in this century rendered uniform and permanent. An inspector or bishop presided over each Christian assembly, and to this office he was elected by the voice of the people. To assist him in his office he formed a council of presbyters, which was not confined to any stated number. To the bishops and presbyters the ministers or deacons were subject; and the latter were divided into a variety of classes, as the different exigencies of the church required. During the greater part of this century, the churches were independent of each other; nor were they united together by any other bonds than those of charity. Each assembly was a little state governed by its own laws, which were either enacted, or at least approved of, by the society. But in process of time all the Christian churches of a province were formed into one large ecclesiastical body, which, like confederate states, assembled at certain times, in order to deliberate concerning the common interests of the whole. This institution had its origin amongst the Greeks; but in a short time it became universal, and similar assemblies were formed in all places where the gospel had been planted. These assemblies, which consisted of the deputies or commissioners from several churches, were called Synods by the Greeks, and Councils by the Latins; and the laws enacted in these general meetings were called Canons, or rules.

These councils, of which we find not the smallest trace before the middle of this century, changed the whole face of the church, and gave it a new form; for by them the

ancient privileges of the people were considerably diminished, and the power and authority of the bishops proportionally augmented. The humility and prudence of these pious prelates indeed hindered them from assuming all at once the power with which they were invested. At their first appearance in these general councils, they acknowledged that they were no more than the delegates of their respective churches, and that they acted in the name and by the appointment of their people. But afterwards changing this humble tone, they imperceptibly extended the limits of their authority; turned their influence into dominion, their counsels into laws; and at length openly asserted that Christ had empowered them to prescribe to his people authoritative rules of faith and manners. Another effect of these councils was the gradual abolition of that perfect equality which had reigned amongst all bishops in the primitive times. For the order and decency of these assemblies required, that some one of the provincial bishops met in council should be invested with a superior degree of power and authority; and hence originated the rights of metropolitans. In the mean time, the bounds of the church were enlarged; the custom of holding councils was followed wherever the sound of the gospel had reached; and the universal church had now the appearance of one vast republic, formed by a combination of a great number of small states. This occasioned the creation of a new order of ecclesiastics, who were appointed in different parts of the world as heads of the church, and whose office it was to preserve the consistency and union of that immense body, the members of which were so widely dispersed throughout the nations. Such was the nature and office of the Patriarchs, amongst whom, at length, ambition, having arrived at its greatest excess, formed a new dignity, investing the bishop of Rome with the title and authority of the Prince of the Patriarchs.

During the second century, there continued all the sects which had sprung up in the first, with the addition of several others, the most remarkable of which were the Ascetics. This sect owed its rise to an error propagated by some doctors of the church, who asserted that Christ had established a double rule of sanctity and virtue for two different orders of Christians. Of these rules, the one was ordinary and the other extraordinary; the one of a lower dignity, the other more sublime; the first for persons engaged in the active scenes of life, the second for those who, in a sacred retreat, aspired after the glory of a celestial state. They accordingly divided into two parts all those moral doctrines and instructions which they had received either by writing or tradition, calling one of these divisions precepts, and the other counsels. The name of precepts they gave to those laws which were universally obligatory upon all orders of men; and that of counsels to those which related to Christians of a more sublime rank, who proposed to themselves great and glorious ends, and breathed after an intimate communion with the Supreme Being. Thus were produced all at once a new set of men, who made pretensions to uncommon sanctity and virtue, and declared their resolution of obeying all the precepts and counsels of Christ, in order to their enjoyment and communion with God here, and also that, after the dissolution of their mortal bodies, they might ascend to him with the greater facility, and find nothing to retard their approach to the centre of happiness and perfection. They looked upon themselves as prohibited from the use of things which it was lawful for other Christians to enjoy, such as wine, flesh, matrimony, and commerce. They thought it their indispensable duty to extenuate their body by watchings, abstinence, labour, and hunger. They looked for felicity in solitary retreats, and in desert places, where, by severe and assiduous efforts of sublime medita-

Ecclesiastical History.

Ecclesiastical History.

tion, they sought to raise the soul above all external objects, and all sensual pleasures. They were distinguished from other Christians, not only by the titles of *Ascetics*, *Σπουδαῖοι*, *Ἐκλεῖστοι*, and philosophers, but also by their garb. In this century, indeed, those who embraced such an austere mode of life submitted themselves to all these mortifications in private, without breaking asunder their social bands, or withdrawing themselves from mankind; but in process of time they retired into deserts, and, after the example of the *Essenes* and *Therapeutæ*, formed themselves into regular companies.

This austere sect originated in a belief which has been more or less prevalent in all ages and in all countries, namely, that religion consists more in prayers, meditations, and a kind of secret intercourse with God, than in fulfilling the social duties of life, and in acts of benevolence and humanity to mankind. Nothing can be more evident indeed than that the Scripture reckons the fulfilling of these infinitely superior to the observance of all the ceremonies which can be imagined. Yet it somehow or other happens, that almost everybody is more inclined to observe the ceremonial part of devotion than the moral; and hence, according to the different humours or constitutions of different persons, there have been numberless forms of Christianity, and the most virulent contentions amongst those who professed themselves followers of the Prince of Peace. It is obvious, that if the moral conduct of Christians was to be made the standard of faith, instead of speculative opinions, all these divisions must cease in a moment; but whilst Christianity, or any part of it, is made to consist in speculation, or the observance of ceremonies, it is impossible there can be any end of sects or heresies. No opinion whatever is so absurd, but some people have pretended to argue in its defence; no ceremony is so insignificant, but it has been explained and sanctified by hot-headed enthusiasts; and hence sects, ceremonies, and absurdities, have been multiplied without number, to the prejudice of society and the detriment of the Christian religion. This short relation of the rise of the Ascetic sect will also serve to account for the rise of any other; so that we apprehend it is needless to enter into particulars concerning the rest, as they all took their origin from the same general principle variously modified, according to the different dispositions of mankind.

The Ascetic sect originated in Egypt, whence it passed into Syria and the neighbouring countries. At length it reached the European nations; and hence that train of austere and superstitious vows and rites which totally obscured, or rather annihilated, Christianity, together with the celibacy of the clergy, and many other absurdities of a similar description. The errors of the Ascetics, however, did not stop here. In compliance with the doctrines of some Pagan philosophers, they affirmed that it was not only lawful, but even praiseworthy, to deceive, and to use the expedient of a lie, in order to advance the cause of piety and truth; and hence the "pious frauds" with which the church of Rome has been so often reproached.

In proportion as Christians thus deviated from the true practice, they became more zealous in the external profession of their religion. Anniversary festivals were celebrated in commemoration of the death and resurrection of Christ, and of the effusion of the Holy Ghost on the apostles. But concerning the days on which these festivals were to be kept there arose violent contests. The Asiatic churches in general differed in this point from those of Europe; and towards the conclusion of the second century, Victor, bishop of Rome, took it into his head to force the eastern churches to follow the rules laid down by those of the West. But this they absolutely refused to comply withal, upon which Victor cut them off from communion with the church of Rome; though, by the in-

tercession of some prudent persons, the difference was temporarily composed.

During most of the third century the Christians were allowed to enjoy their religion, such as it was, without molestation. The emperors Maximinus and Decius, indeed, made them feel all the rigours of a severe persecution; but the reigns of these persecutors were short, and from the death of Decius till the time of Diocletian the church enjoyed tranquillity. Vast multitudes were accordingly converted; but at the same time the doctrine of the church grew daily more corrupt, and the lives of professed Christians became more wicked and scandalous. New ceremonies were invented in great numbers, and an unaccountable passion prevailed for the oriental superstitions concerning dæmons, whence sprung the whole train of exorcisms, spells, and fears for the apparition of evil spirits, which are not yet entirely eradicated. From the same source was also derived the custom of avoiding all connections with those who were not baptized, or who lay under the penalty of excommunication, as persons supposed to be under the dominion of some evil spirit; and hence the rigorous severity of that discipline and penance imposed upon those who had incurred, by their immoralities, the censure of the church. Several alterations were now made in the manner of celebrating the eucharist. The prayers used on this occasion were lengthened, the solemnity and pomp with which it was attended were considerably increased, and gold and silver vessels were used in its celebration. It was now thought essential to salvation, and for that reason administered even to infants. Baptism was celebrated twice a year to such as, after a long course of trial and preparations, offered themselves as candidates for admission into the church. The remission of sins was believed to be its immediate consequence, whilst the bishop, by prayer and imposition of hands, was supposed to confer those sanctifying gifts of the Holy Spirit which were necessary to a life of righteousness and virtue. An evil dæmon was supposed naturally to reside in every person, and was accounted the author and source of all the corrupt dispositions and unrighteous actions of that person. The expulsion of this dæmon therefore formed an essential requisite for baptism; and hence the baptized persons returned home clothed in white garments, and adorned with crowns, as sacred emblems, the former of their inward purity and innocence, and the latter of their victory over sin and the world. Fasting began now to be held in more esteem than formerly. A high degree of sanctity was attributed to this practice; it was even looked upon as indispensably necessary, from a notion that the dæmons directed their force chiefly against those who pampered themselves with delicious fare, and were less troublesome to the lean and hungry who lived under the severities of a rigorous abstinence. The sign of the cross was also supposed to possess a victorious power over all sorts of trials and calamities; it was more especially considered as the surest defence against the snares and stratagems of malignant spirits; and for this reason no Christian undertook any thing of moment, without arming himself, as he imagined, with the power of this triumphant sign. The heresies which troubled the church during this century were those of the Gnostics, whose doctrines were new-modelled and improved by Manes, the founder of the Manicheans, the Hieracites, Noetians, Sabellians, and Novatians; but for a particular account of these sects, the reader is referred to the articles under their respective names.

The fourth century is remarkable for the establishment of Christianity by law in the Roman empire, which took place in the year 324. In the beginning of this century the empire was governed by four chiefs; Diocletian, Maximian, Constantius Chlorus, and Galerius, under whom the

Ecclesiastical History.

Ecclesiastical History.

Ecclesiastical History.

church enjoyed complete toleration. Diocletian, though much addicted to superstition, entertained no hatred of the Christians; and Constantius Chlorus, having abandoned polytheism, treated them with condescension and benevolence. This alarmed the Pagan priests, whose interests were so closely connected with the continuance of the ancient superstitions, and who apprehended, not without reason, that the Christian religion would at length prevail throughout the empire. To prevent the downfall of the Pagan superstition, therefore, they applied to Diocletian and Galerius Cæsar, by whom a bloody persecution was commenced in the year 303, and continued till 311. An asylum, however, was opened for the Christians in the year 304. Galerius having dethroned Diocletian and Maximian, declared himself emperor in the East, leaving to Constantius Chlorus all the western provinces, to which great numbers of Christians resorted to avoid the cruelty of the persecutor. But Galerius being at length overtaken with a dreadful and incurable disease, published an edict ordering the persecution to cease, and restoring freedom to the Christians, whom, for eight years, he had most inhumanly oppressed. Galerius died the same year; and in a short time afterwards, when Constantine the Great ascended the throne, the Christians were freed from any further uneasiness, by his abrogating all the penal laws enacted against them, and afterwards issuing edicts by which no other religion than the Christian was tolerated throughout the empire.

But this event, so favourable to the outward peace of the church, was far from promoting its internal harmony, or the reformation of its leaders. The clergy, who had all this time been augmenting their power at the expense of the liberty of the people, now set no bounds to their ambition. The bishop of Rome was the first in rank, and distinguished by a sort of pre-eminence above the rest of the prelates. He surpassed all his brethren in the magnificence and splendour of the church over which he presided, in the riches of his revenues and possessions, in the number and variety of his ministers, in his credit with the people, and in his sumptuous and splendid manner of living. Hence it happened, that when a new pontiff was to be chosen by the presbyters and people, the city of Rome was generally agitated with dissensions, tumults, and cabals, which often produced fatal consequences. The intrigues and disturbances which prevailed in that city in the year 366, when, upon the death of Liberius, another pontiff was to be chosen in his room, are a sufficient proof of what we have advanced. Upon that occasion, one faction elected Damasus to that high dignity; whilst the opposite party chose Ursicinus, a deacon of the vacant church, to succeed Liberius. This double election gave rise to a dangerous schism, and to a sort of civil war within the city of Rome, which was carried on with the utmost fury and barbarity, and produced the most cruel massacres and desolations. The inhuman contest ended in the victory of Damasus; but whether his cause was more or less just than that of Ursicinus, cannot now be determined with any degree of certainty.

Notwithstanding the pomp and splendour which surrounded the Roman see, it appears that the bishops of Rome had not yet acquired that pre-eminence of power and jurisdiction which they afterwards enjoyed. In the ecclesiastical commonwealth, indeed, they were the most eminent order of citizens; but still they were citizens as well as their brethren, and subject, like them, to the laws and edicts of the emperors. All religious causes of extraordinary importance were examined and determined either by judges appointed by the emperors, or in councils assembled for that purpose; whilst those of inferior moment were decided in each district by its respective bishop. The ecclesiastical laws were enacted either by the emperor

or by the councils. None of the bishops acknowledged that they derived their authority from the permission and appointment of the bishop of Rome, or that they were created bishops by the favour of the Apostolic See. On the contrary, they all maintained that they were the ambassadors and ministers of Jesus Christ, and that their authority was derived from above. It must, however, be observed, that even in this century several of those steps were laid by which the bishops of Rome afterwards ascended to the summit of ecclesiastical power and authority. This happened partly by the imprudence of the emperors, partly by the dexterity of the Roman prelates themselves, and partly by the inconsiderate zeal and precipitate judgment of certain bishops. The imprudence of the emperor, and the precipitation of the bishops, were remarkably discovered in an event which greatly favoured the ambition of the Roman pontiff. About the year 372, Valentinian enacted a law, empowering the bishop of Rome to examine and judge other bishops, in order that religious disputes might not be decided by any profane or secular judges. The bishops assembled in council at Rome in 378, not considering the consequences which might ensue from this imprudent law, both to themselves and to the church, declared their approbation in the strongest terms, and recommended the execution of it in their address to the emperor Gratian. Some think, indeed, that this law empowered the bishop of Rome to judge only the bishops within the limits of his jurisdiction; but others are of opinion that his power was given only for a certain time, and for a particular purpose. This last notion seems the most probable; but still the privilege in question must have proved an excellent instrument for the advancement of sacerdotal ambition.

By the removal of the seat of empire to Constantinople, the emperor raised up, in the bishop of this new metropolis, a formidable opponent to the bishop of Rome, and erected a bulwark which threatened a vigorous opposition to his growing authority. For as the emperor, desiring to render Constantinople a second Rome, enriched it with all the rights and privileges, honours and ornaments, of the ancient capital of the world; so its bishop, measuring his own dignity and rank by the magnificence of the new city, and its eminence as the seat of empire, assumed an equal degree of authority with the bishop of Rome, and claimed a superiority over the rest of the episcopal order. Nor did the emperors disapprove of these high pretensions, since they considered their own dignity as connected in a certain measure with that of the bishop of the imperial city. Accordingly, in a council held at Constantinople in the year 381, by the authority of Theodosius the Great, the bishop of that city was, during the absence of the bishop of Alexandria, and against the consent of the Roman pontiff, placed, by the third canon of that council, in the first rank after the bishop of Rome, and consequently above those of Alexandria and Antioch. Nectarius was the first bishop who enjoyed the new honours accumulated on the see of Constantinople. His successor, the celebrated John Chrysostom, extended still further the privileges of that see, and submitted to its jurisdiction all Thrace, Asia, and Pontus; nor were the succeeding bishops of the imperial city destitute of a fervent zeal to augment their privileges and extend their dominion. By this unexpected promotion, however, the most disagreeable effects were produced. The bishops of Alexandria were not only filled with the most inveterate hatred against those of Constantinople, but a contention was excited between the bishops of Rome and Constantinople, which, after being carried on for ages, terminated at last in the separation of the Greek and Latin churches.

Constantine the Great, in order to prevent civil commotions, and to fix his authority on a stable and solid founda-

Ecclesiastical History.

tion, made several changes not only in the laws of the empire, but also in the form of the Roman government. And as many important reasons induced him to adapt the administration of the church to these changes in the civil constitution, this necessarily introduced amongst the bishops new degrees of rank and eminence. The four bishops, of Rome, Constantinople, Antioch, and Alexandria, were distinguished by a certain degree of pre-eminence over the rest. These four prelates answered to the four prætorian prefects created by Constantine; and it is possible, that even in this century they were distinguished by the Jewish title of patriarchs. After them followed the exarchs, who had the inspection of several provinces, and answered to the appointment of certain civil officers who bore the same title. In a lower class were the metropolitans, who had only the government of one province; under whom were the archbishops, whose inspection was confined to certain districts. In this gradation the bishops brought up the rear; but the sphere of their authority was not in all places equally extensive, being in some considerable, and in others confined within narrow limits. To these various ecclesiastical orders we might add that of the *Chorepiscopi*, or superintendents of the country churches; but this last order was in most places suppressed by the bishops, with the design of extending their own authority, and enlarging the sphere of their own power and jurisdiction. The administration of the church itself was divided by Constantine into an external and internal inspection. The latter, which was committed to bishops and councils, related to religious controversies, the forms of divine worship, the offices of priests, the vices of the ecclesiastical orders, and other matters. The external administration of the church the emperor assumed to himself. This comprehended all those things which related to its outward state and discipline; it likewise extended to all contests which might arise between the ministers of the church, superior as well as inferior, concerning their possessions, their reputation, their rights and privileges, their offences against the laws, and other matters, but no controversies which related to matters purely spiritual were cognizable by this external inspection. In consequence of this artful division of the ecclesiastical government, Constantine and his successors called councils, presided in them, appointed the judges of religious controversies, terminated the differences which arose between the bishops and the people, fixed the limits of the ecclesiastical provinces, took cognizance of the civil causes which originated between the ministers of the church, and punished the crimes committed against the laws by the ordinary judges appointed for that purpose, giving over all causes purely ecclesiastical to the bishops and councils. But this division of the administration of the church was never explained with sufficient accuracy; and hence both in the fourth and fifth centuries there are frequent instances of the emperors determining matters purely ecclesiastical, and likewise of bishops and councils determining matters which related merely to the external form and government of the church.

After the time of Constantine many additions were made by the emperors and others to the wealth and honours of the clergy; and these additions were followed by a proportional increase of their vices and luxury, particularly amongst those who lived in great and opulent cities. The bishops, on the one hand, contended with each other in the most scandalous manner concerning the extent of their respective jurisdictions; whilst, on the other, they trampled on the rights of the people, violated the privileges of the inferior clergy, and imitated in their conduct and in their manner of living the arrogance, voluptuousness, and luxury of magistrates and princes. This pernicious example was soon followed by the several ecclesiastical orders. The presbyters, in many places, as-

sumed an equality with the bishops in point of rank and authority. Many complaints are also made by the authors of this century concerning the vanity and effeminacy of the deacons. Those more particularly of the presbyters and deacons who filled the first stations of these orders, carried their pretensions to an extravagant length, and were offended at the notion of being placed on an equality with their colleagues. For this reason they not only assumed the titles of Archpresbyters and Archdeacons, but also claimed a degree of authority and power much superior to that which was vested in the other members of their respective orders.

In the fifth century, the bishops of Constantinople having already reduced under their jurisdiction all the Asiatic provinces, began to aim at a still further increase of power. By the twenty-eighth canon of the council held at Chalcedon in 451, it was resolved that the same rights and honours which had been conferred upon the bishop of Rome were due to the bishop of Constantinople, on account of the equal dignity and lustre of the two cities in which these prelates exercised their authority. The same council by a solemn act confirmed the bishop of Constantinople in the spiritual government of those provinces over which he had usurped the jurisdiction. Leo the Great, bishop of Rome, opposed with vehemence the enactment of these laws; and his opposition was seconded by that of several other prelates. But their efforts were vain, as the emperors threw in their weight into the balance, and thus supported the decisions of the Grecian bishops. In virtue of the decisions of this famous council, therefore, the bishop of Constantinople began to contend obstinately with the Roman pontiff for the supremacy, and to crush the bishops of Antioch and Alexandria. About the same time, Juvenal, bishop of Jerusalem, attempted to withdraw himself and his church from the jurisdiction of the bishop of Cæsarea, and aspired to a place amongst the first prelates of the Christian world. The high degree of veneration and esteem in which the church of Jerusalem was held amongst all the other Christian societies, on account of its rank amongst the apostolical churches, and its title to the appellation of *mother church*, as having succeeded the first Christian assembly formed by the apostles, was extremely favourable to the ambition of Juvenal, and rendered his project much more practicable than it would otherwise have been. Encouraged by this, and likewise by the protection of Theodosius the younger, this aspiring prelate not only assumed the dignity of patriarch of all Palestine, a rank which rendered him independent of all spiritual authority; but also invaded the rights of the bishop of Antioch, and usurped his jurisdiction over the provinces of Phœnicia and Arabia. Hence there arose between Juvenal, and Maximus bishop of Antioch, a warm contest, which the council of Chalcedon decided, by restoring to the latter the provinces of Phœnicia and Arabia, and confirming the former in the spiritual possession of all Palestine, and in the high rank which he had assumed in the church.

In 588, John, bishop of Constantinople, surnamed the *Faster*, either by his own authority, or by that of the emperor Mauritius, summoned a council at Constantinople, to inquire into an accusation brought against Gregory, bishop of Antioch; and upon this occasion he assumed the title of Œcumenical or Universal Bishop. This title had been formerly enjoyed by the bishop of Constantinople without any offence; but Gregory the Great, at that time bishop of Rome, suspecting that John was aiming at establishing supremacy over all the churches, opposed his claim with the greatest vigour. For this purpose he applied by letters to the emperor, and others whom he thought capable of assisting him in his opposition; but all his efforts were without effect; and the bishops of Con-

Ecclesiastical History.

Ecclesiastical History. Constantinople were allowed to enjoy the disputed title, though not in the sense which had alarmed the Roman pontiff.

Gregory, however, adhered tenaciously to his purpose; raised new tumults and dissensions amongst the clergy; and aimed at nothing less than an unlimited supremacy over the Christian church. This ambitious design succeeded in the West; but in the eastern provinces his arrogant pretensions were scarcely respected by any excepting those who were at enmity with the bishop of Constantinople. How much the people were at this time deluded by the Roman pontiffs, appears from the expression of Ennodius, one of the flatterers of Symmachus, a prelate of but ambiguous fame, that the Roman pontiff was constituted judge in the place of God, and acted as the viceroy of the Most High. On the other hand, from a variety of authentic records, it may be concluded that both the emperors and the nations in general were far from being disposed to bear with patience the yoke of servitude which the see of Rome was thus labouring to impose on the whole church.

In the beginning of the seventh century, according to the most learned historians, Boniface III. engaged Phocas, emperor of Constantinople, to deprive the bishop of that metropolis of the title of œcumenical or universal bishop, and to confer it upon the Roman pontiff; and thus was first introduced the supremacy of the pope. Meanwhile the Roman pontiffs employed every method to maintain and enlarge their authority and pre-eminence.

In the eighth century, the power of the bishop of Rome, and of the clergy in general, increased prodigiously. The principal cause of this was the method at that time employed by the European princes to secure themselves on their thrones. All these princes being then occupied either in usurpation or in self-defence, and the whole Continent being in the most unsettled and barbarous condition, they endeavoured to attach to their interests those whom they considered as their friends and clients. With this view they distributed amongst the latter extensive territories, cities, and fortresses, with the various rights and privileges belonging to them; reserving only to themselves the supreme dominion, and the military service of these powerful vassals. Hence the European princes reckoned it a high instance of political prudence to distribute amongst the bishops and other Christian doctors the same sort of donations which had formerly been given to their generals and clients. By means of the clergy, they hoped to check the seditious and turbulent spirits of their vassals, and to maintain them in obedience by the influence and authority of their bishops, whose commands were highly respected, and whose spiritual thunderbolts, rendered formidable by ignorance, struck terror into the boldest and most resolute hearts.

This prodigious accession to the opulence and authority of the clergy in the West began at their head, the Roman pontiff; and from him it descended, spreading gradually amongst the inferior sacerdotal orders. The barbarous nations who had received the gospel looked upon the bishop of Rome as the successor of their chief druid or high priest; and as this druid had, under the darkness of Paganism, enjoyed boundless authority, so these barbarous nations thought proper to confer upon the supreme pontiff the same authority which had belonged to the chief druid. The pope received these august privileges with undisguised satisfaction; and lest attempts should be made to deprive him thereof, he strengthened his titles to these extraordinary honours by a variety of passages drawn from ancient history, and even by arguments of a religious nature. This increased the power of the pope enormously, and gave to the see of Rome that high pre-eminence and despotic authority in civil and political matters which were

unknown to former ages. Hence, amongst other unhappy circumstances, arose the pernicious opinion, that such persons as were excluded from the communion of the church by the pontiff himself, or by any of the bishops, forfeited not only their civil rights and advantages as citizens, but even the common claims and privileges of humanity. This monstrous opinion, which proved a fatal source of wars, massacres, and rebellions, and which contributed more than any thing else to confirm and augment the papal authority, was borrowed by the clergy from the Pagan superstitions. Though, from the time of Constantine the Great, excommunication was, in every part of the Christian world, attended with many disagreeable consequences, yet its highest terrors were confined to Europe, where its aspect was truly formidable and hideous. But in the eighth century it acquired a new accession of terror; and from that period the excommunication practised in Europe differed entirely from that which was in use in other parts of Christendom. Excommunicated persons were indeed considered in all places as objects of hatred both to God and man; but they were not on that account robbed of the privileges of citizens, nor of the rights of humanity; much less were those kings and princes, whom an insolent bishop had thought proper to exclude from the communion of the church, supposed to forfeit on that account their crowns or their territories. But from this century it was quite otherwise in Europe. Excommunication received that plenary power which dissolved all connections; those whom the bishops or their head excluded from church communion were degraded to a level with the beasts. This unnatural power took its origin in an ignorant misconception. Upon the conversion of the barbarous nations to Christianity, these proselytes confounded the excommunication in use amongst Christians with that which had been practised in the times of Paganism, and which was attended with all the dreadful effects above mentioned. The Roman pontiffs, on the other hand, were too artful not to encourage this error; and hence they employed all sorts of means to gain credit to an opinion so well calculated to gratify their ambition, and to aggrandize the episcopal order.

The annals of the French nation furnish us with an instance of the enormous power which was at this time vested in the Roman pontiff. Pepin, who was mayor of the palace to Childeric III. king of France, and who in the exercise of that high office possessed in reality the royal power and authority, aspired to the titles and honours of majesty, and formed a scheme for dethroning his sovereign. For this purpose he assembled the states in 751; and although they were devoted to the interests of the ambitious usurper, they gave it as their opinion that the bishop of Rome was previously to be consulted whether the execution of such a scheme was lawful or the contrary. Ambassadors were accordingly sent by Pepin to Zachary, the reigning pontiff, with the following question: "Whether the divine law did not permit a valiant and warlike people to dethrone a pusillanimous and indolent prince, who was incapable of discharging any of the functions of royalty, and to substitute in his place one more worthy to rule, and who had already rendered most important services to the state?" The situation of Zachary, who stood much in need of the succours of Pepin against the Greeks and Lombards, rendered his answer such as the usurper desired; and when this favourable decision of the Roman pontiff was published in France, the unhappy Childeric was stripped of his royalty without the least opposition, and Pepin stepped into the throne of his sovereign and master. This decision was solemnly confirmed by Stephen II. the successor of Zachary, who undertook a journey into France in the year 754, in order to solicit assistance against the Lombards. The pontiff at the same time dis-

Ecclesiastical History.

Ecclesiastical History.

solved the obligation of the oath of fidelity and allegiance which Pepin had violated by his usurpation in the year 751; and to render his title to the crown as sacred as possible, Stephen anointed and crowned him, with his wife and two sons, for the second time. This complaisance of the pope was rewarded with the exarchate of Ravenna and all its dependencies, as has already been related.

In the succeeding centuries, the Roman pontiffs continued by every means to increase their power; and by continually taking advantage of the civil dissensions which prevailed throughout Italy, France, and Germany, their influence in civil affairs rose to an enormous height. The increase of their authority in religious matters was not less rapid. The wisest and the most impartial amongst the Roman Catholic writers acknowledge, that from the time of Louis the Meek the ancient rules of ecclesiastical government were gradually changed in Europe by the counsels and instigation of the church of Rome, and new laws substituted in their stead. The European princes suffered themselves to be divested of the supreme authority in religious matters, which they had derived from Charlemagne; the power of the bishops was greatly diminished, and even the authority of both provincial and general councils began to decline. The popes, elated with their overgrown power, and rendered arrogant by the daily accessions which were made to their authority, sought to establish the maxim, that the bishop of Rome was constituted and appointed by Jesus Christ as supreme legislator and judge of the universal church, and that consequently the bishops derived all their authority from him. This opinion, which they inculcated with the utmost zeal and ardour, was opposed in vain by such as were acquainted with the ancient ecclesiastical constitutions, and the government of the church in the primitive ages. But in order to gain credit to this new ecclesiastical code, and to support the pretensions of the popes to supremacy, it was necessary to produce the authority of ancient deeds, in order to shut the mouths of such as were disposed to set bounds to their usurpations. The bishops of Rome were aware of this; and as all means were looked upon as lawful which tended to the accomplishment of their designs, they employed some of their most ingenious and zealous partisans in forging conventions, acts of councils, epistles, and such like records, by which it might appear that in the first ages of the church the Roman pontiffs were clothed with the same spiritual majesty and supreme authority which they now assumed. There were not wanting amongst the bishops, however, some men of prudence and sagacity, who saw through these pious frauds, and perceived the chains which were forging both for them and for the church. The French bishops distinguished themselves eminently in this respect; but their opposition was soon quashed; and as all Europe had sunk in the grossest ignorance and darkness, none remained who were capable of detecting these impostures, or disposed to support the expiring liberty of the church. It is proper to add, however, that these grievous charges are strenuously denied by Catholic writers.

In the eleventh century the power of the bishops of Rome seems to have attained its utmost height. They now received the pompous titles of masters of the world, and popes, or universal fathers. They presided everywhere in the councils by their legates, assumed the authority of supreme arbiters in all controversies which arose concerning religion or church discipline, and maintained the pretended rights of the church against the encroachments and usurpations of kings and princes. Their authority, however, was confined within certain limits. On the one hand, it was restrained by sovereign princes, that it might not arrogantly aim at civil dominion; and on the other, it was opposed by the bishops themselves,

that it might not degenerate into a spiritual despotism, and utterly destroy the privileges and liberty of synods and councils. From the time of Leo IX. the popes employed every method which ambition could suggest to remove those limits, and to render their dominion both despotic and universal. They not only aspired to the character of supreme legislators in the church, to an unlimited jurisdiction over all synods and councils, whether general or provincial, and to the sole distribution of all ecclesiastical honours and benefices, as divinely authorized and appointed for that purpose; but they carried their pretensions so far as to give themselves out as lords of the universe, arbiters of the fate of kingdoms and empires, and supreme rulers over the kings and princes of the earth. Hence we find instances of their giving away kingdoms, and loosing subjects from their allegiance to their sovereigns, as in the case of King John of England. They even assumed the whole earth as their property, as well where Christianity was planted as where it was not. Accordingly, on the discovery of America and the East Indies, the pope, by virtue of this spiritual property, granted to the Portuguese a right to all the countries lying to the eastward, and to the Spaniards a right to all those lying to the westward, of Cape Non in Africa, which they were able to conquer by force of arms.

During all this time superstition reigned triumphant over the remains of Christianity which had escaped the corruptions of the first four centuries. In the fifth century commenced the invocation of the happy souls of departed saints. Their assistance was entreated by fervent prayers, whilst none stood up in opposition to this preposterous kind of worship. The images of those who during their lives had acquired the reputation of uncommon sanctity, were now honoured with a particular homage in several places; and many ignorant persons imagined that this drew into the images the propitious presence of the saints or celestial beings whom they were supposed to represent. A singular efficacy was attributed to the bones of martyrs, and to the figure of the cross, in defeating all the attempts of Satan, removing all sorts of calamities, and in healing not only the diseases of the body, but also those of the mind. The famous Pagan doctrine concerning the purification of departed souls by means of a certain kind of purgation, was also confirmed and explained more fully than it had formerly been; and it is well known of how much consequence this doctrine at one time proved to the wealth and the power of the church of Rome.

In the sixth century Gregory the Great advanced an opinion, that all the words of the sacred writings were images of invisible and spiritual things; and for this reason he loaded the churches with a multitude of ceremonies the most insignificant and futile that can well be imagined. Hence arose a new and most difficult science, namely, the explication of these ceremonies, and the investigation of the causes and circumstances whence they derived their origin. A new method was contrived of administering the Lord's Supper, with a magnificent assemblage of pompous ceremonies. This was called the Canon of the Mass. Baptism, excepting in cases of necessity, was administered only on the great festivals. An incredible number of temples were erected in honour of the saints. The places set apart for public worship were also very numerous. But now they were considered as the means of purchasing the protection and favour of the saints; and the ignorant and barbarous multitude were persuaded that these departed spirits defended and guarded against evils and calamities of every kind, the provinces, lands, cities, and villages in which they were honoured with temples. The number of these temples was almost equalled by that of the festivals, which were increased beyond all bounds, and formed a grievous deduction from the time of the people.

Ecclesiastical History.

In the seventh century religion seemed to be altogether buried under a heap of superstitious ceremonies; the worship of the true God and Saviour of the world was exchanged for that of bones, relics, and images. The eternal state of misery threatened in Scripture to the wicked was commuted for the temporary punishment of purgatory; and the expressions of faith in Christ by an upright and virtuous conduct, for the augmentation of the riches of the clergy by donations to the church, and the observance of a heap of idle ceremonies. New festivals were still added; one in particular was instituted in honour of the true cross on which our Saviour had suffered; and churches were declared to be sanctuaries to all who fled to them, whatever their crimes might have been.

Superstition, it would seem, had now attained its highest pitch; nor is it easy to conceive any degree of ignorance and degeneracy greater than that which we have already mentioned. If any thing can possibly be imagined more contrary to true religion, it is an opinion which prevailed in the eighth century, that Christians might appease an offended deity by voluntary acts of mortification, or by gifts and oblations lavished on the church; and that people ought to place their confidence in the works and merits of the saints. Piety in this and some succeeding ages consisted in building and embellishing chapels; in endowing monasteries and basilicas; in hunting after the relics of saints and martyrs, and treating them with an absurd and excessive veneration; in procuring the intercession of the saints by rich oblations or superstitious rites; and in pilgrimages to those places which were esteemed holy, particularly to Palestine. The genuine religion of Jesus was now in a great measure unknown both to clergy and people. In this century also the superstitious custom of solitary masses had its origin. These were celebrated by the priest alone in behalf of the souls detained in purgatory, as well as upon other occasions. They were prohibited by the laws of the church, but proved a source of immense wealth to the clergy. Under Charlemagne they were condemned by a synod assembled at Mentz, as the result of avarice and sloth. A new superstition, however, sprung up in the tenth century. It was imagined that Antichrist was to make his appearance upon the earth, and that soon afterwards the world itself would be destroyed. An universal panic ensued. Vast numbers of people, abandoning all their connections in society, and giving over to the churches and monasteries all their worldly effects, repaired to Palestine, where they imagined that Christ would descend from heaven to judge the world; whilst others devoted themselves by a solemn and voluntary oath to the service of the churches, convents, and priesthood. All this proceeded from a notion that the supreme Judge would diminish the severity of their sentence, and look upon them with a more favourable eye, on account of their having made themselves the servants of his ministers. When an eclipse of the sun or moon happened to be visible, the cities were deserted, and their miserable inhabitants, flying for refuge to hollow caverns, hid themselves amongst the craggy rocks, and under the bending summits of steep mountains. The opulent attempted to bribe the saints and the Deity himself by rich donations conferred upon the sacerdotal order, who were looked upon as the immediate vicegerents of heaven. In many places, temples, palaces, and noble edifices, both public and private, were suffered to decay, or were deliberately pulled down, from a notion that they were no longer of any use, as the final dissolution of all things was at hand. In a word, no language is sufficient to express the confusion and despair which tormented the minds of miserable mortals upon that occasion. The general delusion was indeed opposed and combated by the discerning few, who endeavoured to dispel these terrors, and to efface the notion from which

they arose in the minds of the people. But their attempts were ineffectual; nor could the dreadful apprehensions of the superstitious multitude be removed until the end of the century, when this terror became one of the accidental causes of the Crusades.

That nothing might now be wanting to complete the system of religion which had overspread all Europe, it was in the eleventh century determined that divine worship should be celebrated in the Latin tongue, though now almost unknown. During the whole of this century, also, Christians were employed in rebuilding and ornamenting their churches, which they had destroyed through the superstitious fears which have already been noticed.

Matters went on in much the same way till the time of the Reformation. The clergy were immersed in sloth, ignorance, and vice; and the laity, imagining themselves able to purchase the pardon of their sins for money, followed the examples of their pastors without remorse. The absurd principle formerly mentioned, that religion consists in acts of austerity, and an unknown mental correspondence with God, produced the most extravagant and ridiculous effects in the conduct of devotees and reputed saints. They not only lived amongst the wild beasts, but also after the manner of these savage animals; they ran naked through the lonely deserts with a furious aspect, and all the agitations of frenzy; they prolonged their wretched life by grass and wild herbs, avoided the sight and conversation of men, remained almost motionless in certain places for several years, exposed to the rigour and inclemency of the seasons, and towards the conclusion of their lives shut themselves up in narrow and miserable cells. But of all the instances of superstitious fanaticism which disgraced the times we are now speaking of, none was held in higher veneration, or excited more the wonder of the multitude, than that of a certain order of men who were called *Stylites* by the Greeks, and *Sancti Columnares*, or Pillar Saints, by the Latins. These were persons of a singular and extravagant turn of mind, who stood motionless on the tops of pillars raised expressly for this exercise of their patience, and remained there for several years amidst the admiration and applause of the populace. The inventor of this strange discipline was one Simeon, a Syrian, who commenced his career by exchanging the agreeable employment of a shepherd for the austerities of a monkish life. He began his devotion on the top of a pillar six cubits high; but as he increased in sanctity, he also augmented the height of his pillar, till, towards the conclusion of his life, he had established his piety on the top of a pillar forty cubits in height. Many of the inhabitants of Syria and Palestine, seduced by a false ambition and an utter ignorance of true religion, followed the example of this fanatic, though not with the same degree of austerity. This superstitious practice began in the fifth century, and continued in the East for nearly six hundred years. The Latins, however, had too much wisdom and prudence to imitate the Syrians and orientals in this whimsical superstition; and when a certain fanatic or impostor named Wulfilaicus erected one of these pillars in the country of Treves, and proposed to live upon it after the manner of Simeon, the neighbouring bishops ordered it to be pulled down.

The practices of austere worship and discipline in other respects, however, gained ground throughout all parts of Christendom. Monks of various kinds were to be found in every country in prodigious numbers. But though their discipline was at first exceedingly severe, it became gradually relaxed, and the monks gave in to all the prevailing vices of the times. Other orders succeeded, who pretended to still greater degrees of sanctity, and to reform the abuses of the preceding ones; but these in their turn became corrupted, and fell into the very same vices

Ecclesiastical History.

which they had blamed in others. The most violent animosities, disputes, and hatreds, also reigned amongst the different orders of monks, as well as amongst the clergy of all ranks and degrees, whether we consider them as classed in different bodies, or as individuals of the same body. To enter into a detail of their wranglings and disputations, the methods which each of them took to aggrandise themselves at the expense of their neighbours, and to keep the rest of mankind in subjection, would lead us far beyond the limits prescribed to this rapid sketch. We may only observe, that even the external profession of the austere and absurd piety which took place in the fourth and fifth centuries gradually declined. Some there were, indeed, who boldly opposed the torrent of superstition and depravity which threatened to overflow the whole world; but their opposition proved fruitless, and towards the era of the Reformation all of them had either been silenced or destroyed.

Whilst superstition and degeneracy thus reigned in the West, the absurd and sanguinary doctrines of Mahommed overspread all the East. The rise of this impostor is related elsewhere. (See ARABIA.) His successors conquered in order to establish the religion of their apostle; and thus the very name of Christianity was extinguished in many places where it had formerly flourished. The conquests of the Tartars having brought them in contact with the Mahomedans, they greedily embraced the superstitions of that religion, which thus almost entirely overspread the continents of Asia and Africa; and the conquest of Constantinople by the Turks in 1453 likewise established the faith of the Prophet throughout a considerable part of Europe.

About the beginning of the sixteenth century the Roman pontiffs lived in the utmost tranquillity; nor had they, according to all appearance, any reason at that time to fear an opposition to their authority in any respect, since the commotions which had been raised by the Waldenses, Albigenses, and other sects, were now entirely suppressed. We must not, however, conclude from this apparent tranquillity and security that the measures of the pontiffs were universally applauded. Not only private persons, but even the most powerful princes and sovereign states, exclaimed loudly against the tyranny of the popes, and the unbridled licentiousness of the clergy of all denominations; and they demanded, therefore, a reformation of the church, and the assembling a general council to accomplish that necessary purpose. But these demands were not successful in awakening attention to the full extent of the evil; and though some of the more flagrant abuses were corrected, nothing effectual was done to restore the wholesome rigour of ecclesiastical discipline. Besides, these complaints proceeded from persons who never entertained any doubt respecting the supreme authority of the pope in religious matters, and who consequently, instead of attempting themselves to bring about the reformation which they so ardently desired, remained inactive, looking for redress to the court of Rome, or to a general council. But whilst the reform appeared to be at a great distance, it suddenly arose from a quarter whence it was not at all expected. A single person, Martin Luther, a monk of the order of St Augustin, ventured to oppose himself to the whole weight of papal power and authority. This bold attempt was first publicly made on the 30th of September 1517; and notwithstanding all the efforts of the pope and his adherents, the doctrines of Luther continued daily to gain ground. Others, also, encouraged by his success, lent their assistance in the great and important work of reformation, which at length produced churches, founded upon principles altogether different from that of Rome.

But on this subject it is unnecessary here to enter into particulars. We shall therefore conclude this section with

a few remarks on the power of the pope, ecclesiastically considered.

Ecclesiastical History.

The ecclesiastical power of the pope may be considered under three different aspects; his power and privileges as bishop of the diocese of Rome; his power and privileges as patriarch of the West; and his power, privileges, and rank, as supreme head of the Catholic church. As, however, it is generally in the last capacity that the pope is considered in this country, we may observe, in the first place, that the actual state of the papal power is the same now as it ever was; it can never change, although the exercise of it may vary, and has varied, according to circumstances. The power of the pope, though, in the belief of the Catholic church, universally acknowledged and respected from the beginning, was less felt in the primitive ages, when the lives and circumstances of Christians were such as seldom to call for any other interference than that of their immediate ecclesiastical superiors; but, in proportion as abuses crept in, and disputes, schisms, and heresies arose, this power was exercised with a greater degree of activity, and naturally attracted a greater share of public attention. Hence it was exerted to its fullest extent during those ages of ignorance and anarchy into which Europe was thrown by the invasions of the different hordes of barbarians which followed the breaking up of the Roman empire. But, in proportion as order has been restored, and a greater degree of civilization introduced, the exercise of the power of the pope as head of the Catholic church has become more limited, because its interposition is less called for. In all ages, however, the ecclesiastical power inherent in the pope as head of the Catholic church has been the same, and must ever be so, in the belief of that church, because, according to its creed, the pope holds his power from God, through a continued succession of predecessors downwards, and can transmit to his successors in office neither more nor less than what he has received. Now, the doctrine of the Catholic church on the authority of the pope as its head may be stated, in general terms, to be what it was defined in the tenth session of the council of Florence, viz. "That full power was delegated to the bishop of Rome, in the person of St Peter, to feed, regulate, and govern the universal church, as expressed in the general councils and holy canons."

The doctrine of this council respecting the supremacy of the pope may be stated in the words of Mr Butler, as contained in his *Book of the Roman Catholic Church*, upon the accuracy of which, as far as doctrine is concerned, the most implicit reliance may, we believe, be placed. "It is an article of the Roman Catholic faith," says he, "that the pope has, by divine right, 1st, a supremacy of rank; 2d, a supremacy of jurisdiction in the spiritual concerns of the Roman Catholic church; and, 3d, the principal authority in defining articles of faith. In consequence of these prerogatives, the pope holds a rank splendidly pre-eminent over the highest dignitaries of the church; he has a right to convene councils, and preside over them by himself or his legates, and to confirm the election of bishops. Every ecclesiastical cause may be brought before him, as the last resort, by appeal; he may promulgate definitions and formularies of faith to the universal church; and when the general body, or a great majority of her prelates, have assented to them, either by formal consent or tacit assent, all her members are bound to acquiesce in them. 'Rome,' they say, in such a case, 'has spoken, and the cause is determined.' To the pope, in the opinion of all Roman Catholics, belongs also a general superintendence of the concerns of the church; a right, when the canons provide no line of action, to direct the proceedings, and, in extraordinary cases, to act in opposition to the canons. In those spiritual concerns in which, by strict right, his au-

Composi-
tion of
History.

thority is not definitive, he is entitled to the highest respect and deference."

These are the points which, as there is no dispute about them, are admitted and believed by the Catholic church. As to the different opinions of different divines, every Catholic is at liberty to adopt or reject them, according as his own judgment and reason may dictate. Has the pope a controlling power over the whole church, should she chance to oppose his decrees, and, consequently, over a general council, her representative? Has he the same power, even in ordinary cases, over the canons of the universal church? Has he the power of calling all spiritual causes to his cognisance; of evoking to himself, or to judges appointed by him, any cause actually depending in an ecclesiastical court? Has he the power of constituting and deposing bishops; of conferring all ecclesiastical dignities and benefices, in or out of his dominions, by paramount authority? Is he personally infallible when he undertakes to issue a solemn decision upon any point of faith? In answer to these interrogatories, some say, yes; others say, no. Both opinions are tolerated by the Catholic church; but, according to Butler, neither speaks its faith. As to the question, whether the pope has a divine right to the exercise, indirectly at least, of temporal power, for effecting a spiritual good, it is no longer a subject of discussion, since all parties have acquiesced in the opinion of those who maintained that he has not; a proof of which was given to Mr Pitt in 1788, in the answers which were returned to his questions upon that head by the universities of Louvain, Douay, Sorbonne, Alcala, and Salamanca.

COMPOSITION OF HISTORY.

History has been defined, philosophy teaching by examples. But this definition is too artificial. History may exist apart from philosophy, just as philosophy may exist apart from history. The alliance of these two is natural, but not necessary. History, considered as a faithful record of past experience, is no doubt fertile in instruction; it is a great magazine of facts from which, reasoning inductively, important conclusions may be deduced. But the lights which the experience of the past may be made to supply for the conduct of the future must not in strictness be confounded with the elements or materials out of which they are struck; in other words, it is most desirable to distinguish between the facts which it is the peculiar business of history to record, and the inferences or general truths which they are calculated to evolve. Narration is the primary, philosophising only the secondary object of history. Every thing depends upon the accurate arrangement and detail of events; on preserving unbroken the sequence which nature has established, and, at the same time, distinguishing between mere coincidence in time or in place, and accidental or necessary connection. Hence radical truth is the foundation of history, the only basis upon which a solid superstructure can be reared. But historical truth consists of two parts; first, not to state what is in its own nature false; and, secondly, not to omit any thing which is true, and necessary to place the subject in a clear and proper light. It is possible to tell the truth, and yet to create a most erroneous impression by not telling the whole truth. The most dangerous, because the most insidious, mode of corrupting history and misleading the judgments of mankind, is the suppression or concealment of important circumstances, which, if known, might give a totally different complexion to the actions or events recorded; and, next to this in pernicious effect, is the less glaring but equally dishonest artifice of giving a disproportionate prominence to one feature of a character, or one aspect of a subject, whilst others, which truth re-

quires to be brought out in commensurate fulness and relief, are either thrown into the shade, or so slightly touched as almost to escape observation. Of this last vice, which, more than any other, is calculated to taint the stream of history, Gibbon, in his narrative of the progressive diffusion of Christianity, presents a notorious and highly censurable example; exaggerating the faults, follies, and errors of the early professors of that faith, without making any account of their heroic fortitude under suffering and persecution, and reserving all his sympathies for material grandeur and barbaric splendour, whilst moral greatness is treated with cold indifference or sarcastic disdain.

But whilst strict truth is thus the grand and sole object of history, or that which distinguishes it from romance on the one hand, and mere party declamation on the other, it must be confessed that nothing is of more difficult attainment, and that the highest faculties of the human mind, moral as well as intellectual, are essentially requisite to him who enters upon the search of it with a view to enlighten and instruct mankind. On all subjects with which the interests, the passions, and the prejudices of men naturally connect themselves, and which are consequently viewed by different observers through different media, we must of course be prepared to expect not only the most opposite opinions, but also the most discordant statements; what is solemnly affirmed by one party or class will be denied with equal emphasis by another; the same event will be presented under the most incongruous aspects, the same character delineated in the most opposite colours; what is found in one authority may be sought for in vain in another; what this writer represents as of the last importance, another may treat as of no moment whatever; whilst the misconceptions of ignorance, uniting with the honest prejudices of party, and the studied misrepresentations of interest or artifice, lend their aid to augment the difficulties and embarrassments which obstruct the search for truth in this entangled and bewildering region. Seeing, then, that it is from such materials that history must be written, it will not be difficult to form a general estimate of the qualities which are essential to constitute an historian in the only just sense of the term. It is not merely necessary that he should be without bias himself, but that he should be capable of making due allowances for all the leanings and prejudices, whether religious, political, or national, which are calculated more or less to affect the judgments and opinions of other men. He must possess an intimate acquaintance with the laws of evidence, or those tests by the application of which the quality or value of evidence, of whatever description, may be ascertained and determined. To extract the truth from a mass of conflicting testimony is one of the most refined and difficult operations which the human mind can be called to perform. It implies patient research, vigilant attention, careful comparison, nice discrimination, prompt perception, and an aptitude for pursuing to their consequences all sorts of investigations, whether direct or collateral; yet this operation the historian, like the judge before whom issues of fact are sent to be tried, is continually required to perform, and that too in circumstances often far more difficult and complicated. The cases which come before the judge arise, for the most part, out of recent occurrences, in the investigation of which many facilities are supplied; those which the historian is called to unravel are frequently overshadowed by the obscurity, and perplexed by the accumulated misrepresentations, of ages. Judicial inquiries commonly relate to a single transaction or set of transactions connected with the ordinary affairs of human life, in which all have more or less experience. Historical researches frequently embrace systems of polity or religion, by which not merely the opinions, but the

Composi-
tion of
History.

Composi-
tion of
History.

destinies of mankind, may have been powerfully affected, either for good or for evil: they comprehend government, laws, commerce, agriculture, arts, sciences, in different states of advancement, with those mighty changes in the fortunes of nations which are effected by war and revolutions, as well as the more gradual modifications superinduced on society by the slow and silent operation of physical, moral, and political causes. The judge plays his part upon a narrow theatre, where his business is merely to unravel a little plot, all the circumstances of which are, in general, brought pretty fully before him. The historian has to explore, and, as it were, map out, an entire country, to unfold a thousand mysteries, to correct a vast multiplicity of errors, and to puzzle his way through the gloom of an obscure and entangled region, where the landmarks are few, and often calculated to mislead.

From all this, then, it will not be difficult to form a general idea of the duties of an historian, as well as of the qualities and accomplishments which are indispensable to fit him for discharging them in a proper manner. The first, and by far the most important of these, is laborious research and patient investigation. Many of the most gifted men who have applied themselves to the composition of history, have not only failed to attain the truth, but have adopted and given currency to falsehood, because they wanted the perseverance necessary for discovering the one and detecting the other. Of this Hume presents a conspicuous and instructive example. That he was deeply prejudiced is known to all; but his indolence has proved infinitely more detrimental to his historical reputation than even his partiality; it has betrayed him into errors the most gross, and led him to commit injustice the most scandalous. The very authorities to which he refers frequently disprove his statements, and others within his reach would have enabled him to discover the truth if he had been at the pains to seek for it, as well as to correct the errors which he had committed. But he was careless of facts, or at least shrunk from the labour necessary to ascertain them; in general he took the statements of the writers upon his own side as he found them, and, without examination or comparison, scrupled not to hold up to derision and contempt some of the purest and brightest names in English history. He misapplied his great talents, and threw around the grossest perversions of English history all the fascination of his delightful style, and sometimes also the attraction of a profound philosophy. His authority as an historian, however, has been rudely shaken by the searching criticism of Mr Brodie, who, in exposing the errors and misrepresentations of Hume, has, at the same time, done justice to the illustrious men, maligned and defamed by the apologist of the house of Stuart. As a further illustration of his carelessness, if not bad faith, we may refer to Mr Tytler's *Life of Sir Walter Raleigh*, in which it is conclusively shown that Hume might, from the very authorities to which he has referred, have discovered the falsehood of the charges which he has brought against that illustrious but unfortunate victim of royal injustice, whose memory he has sought to load with unmerited obloquy. In this case, the truth was at his hand, had he given himself the smallest trouble to look for it.

The next quality which we shall mention as essential to an historian is strict probity. We do not mean to affirm that prejudice is necessarily dishonest, however much it may tend to blind the understanding and warp the judgment. Where it is avowed or manifest, the reader is thereby put on his guard, and, being forewarned, is seldom deceived. But there is a species of dishonesty which tends more than any other to corrupt the purity of history, yet, by reason of its latent and insidious character, frequently escapes detection, and indeed can seldom be ex-

posed by definite arguments. We refer particularly to the artifice by which the whole gist and bearing of a narrative is insensibly inclined, in favour perhaps of the very individual whose vices or crimes are occasionally exposed with ostentatious fairness and candour, though seldom without the charitable suggestion of some palliating or mitigating circumstance to qualify the sentiments which the statement itself is calculated to awaken. Take, for instance, the history of Scotland by Dr Robertson. In that eloquent and masterly performance, the vices, follies, and crimes of Queen Mary are neither concealed nor directly extenuated; and subjoined to it there is a dissertation on the murder of Darnley, in which the question of her guilty participation in that atrocious crime is for ever put to rest. But notwithstanding all this, the general tendency and effect of the work is decidedly in her favour; and, when the final balance is struck, the remembrance of her guilt is absorbed in sympathy for her misfortunes. We are suffered gradually to lose sight of the one, and are continually reminded of the other. She is, in fact, the heroine of the story, in whom all the interest ultimately centres. By an insensible transition, the criminal, who had dishonoured her station and her sex, is converted into a victim and a martyr. We see before us only an injured queen, who, after an imprisonment of unexampled duration, is at length dragged forth to end her sufferings and her sorrows on the block. The understanding, in fact, is misled through the heart, and the moral judgment is perverted by artfully calling into play some of the best feelings of humanity. Now, in a romance, all this might be highly fitting and proper, because there the grand object is to interest us deeply in favour of the fortunes of the principal personage displayed on the canvass of the romancer. But in a work of history, truth should be exhibited in severe and stern simplicity, not dressed in the fairy attire of fiction, or concealed under the trappings and pageantry of worldly greatness. If an erroneous impression be deliberately and artfully produced, it matters little, in a question of historical probity, how or by what means that is effected; but it may be truly said that honest and avowed prejudice is immeasurably less injurious to the cause of truth than those ingenious but insidious devices which, like that here mentioned, array the feelings against the judgment, and call forth the emotions of the heart, only to counteract the perceptions of the understanding.

Cicero has laid it down that an accomplished orator should be possessed of almost universal knowledge. The same thing applies with much greater force to the historian, who has to treat of almost every subject which is interesting or important to mankind; science, philosophy, legislation, government, religion, war, commerce, art, and industry. On this standard Gibbon laboured for years to form himself, and it must be confessed that, in the acquisitions necessary for the performance of the mighty task which he had prescribed to himself, he stands almost alone amongst modern historians. His learning was equally varied and profound, and the more it is explored the higher will be the estimate formed, not only of the extent of his treasures, but also of the judgment and skill with which these are almost invariably brought to bear upon the subject before him, whatever it may be. Nor has his example proved fruitless or unavailing. The cultivation of the historical sciences, which had so long been neglected, has latterly engaged the attention and occupied the labours of some of the first minds in Europe; of men who, to the investigations which such pursuits render necessary, have brought all the resources of deep learning and original thought, of profound philosophy, and an intimate acquaintance with the true interests of states. In the hands of Von Hammer light has been shed on many of the darkest passages of Ottoman history; Heeren has traced,

Composi-
tion of
History.

HISTRIO with great clearness, sagacity, and learning, the intercommunications of ancient nations, and the routes pursued by ancient commerce; and Niebuhr, having dissipated the mist of fable and romance which overshadowed the early history of Rome, has reduced the exaggerations of chroniclers and poets to their true dimensions, and laid a foundation for all ages, though, unfortunately, without being permitted to raise the superstructure. Michaud's *Histoire des Croisades* is also a work of extensive research and profound investigation, in which the various resources afforded by the science of criticism have been employed to rectify errors, and to shed a new and steady light on what was formerly obscure; whilst new views or new facts, derived from sources previously unexplored, are unfolded in almost every page. It is thus that history ought to be written, if intended to be instructive. By applying the powerful instrument of an enlightened and philosophical criticism, we shall no doubt dispel almost every ingredient

allied to the marvellous, and sadly disenchant the gorgeous creations of romance; but truth, in her divine simplicity, will remain to atone for the destruction of these airy and unsubstantial fabrics, and to command the respect and homage of enlightened worshippers. We have fallen upon an utilitarian age, when men, having ceased to pursue shadows, seek for the substance of knowledge, when glitter and tinsel are disregarded, when amusement is sought through the medium of instruction, and when nothing is considered as agreeable which is altogether useless. Besides, as mankind rise in political importance, and feel that they have rights to exercise, interests to advance, and privileges to defend, their desire to seek lessons for the future in the experience of the past receives a corresponding increase; they lose their relish for romance, and acquire a taste for simple, unadulterated truth, which is alone calculated to extend their knowledge and promote their happiness.

History of Nature, or Natural History. See NATURAL HISTORY.

HISTRIO, in the ancient drama, signified an actor or comedian; but more especially a pantomime, who exhibited his part by gestures and dancing. Livy informs us that the histriones were brought to Rome from Etruria, in the year of the city 391.

HIT, a village of Irak Arabia, situated on a river of the same name, which is a tributary of the Euphrates. There are abundant pits of bitumen in the neighbourhood, from which it is supposed that supplies were derived for the construction of ancient Babylon.

HITCHEN, a town in the county of Hertford, which gives its name to the hundred, thirty-four miles from London. It was once of some note for its manufactures, but none is left except that of making malt. It is a well-built town, with a good market held on Tuesday, at which much corn is sold. The inhabitants amounted in 1801 to 3161, in 1811 to 3608, in 1821 to 4486, and in 1831 to 5211.

HITTITES, the descendants of Heth. See HETH.

HIVE, a convenient receptacle for bees. See BEE.

HIVITES, a people descended from Canaan, who dwelt at first in the country afterwards possessed by the Caphorims or Philistines.

HOADLY, BENJAMIN, successively bishop of Bangor, Hereford, Salisbury, and Winchester, was born in the year 1676. His first preferment in the church was to the rectory of St Peter-le-Poor, and the lectureship of St Mildred's in the Poultry. In the year 1706 he published some remarks on Bishop Atterbury's sermon at the funeral of Mr Bennet, in which Dr Atterbury had, in the opinion of Mr Hoadly, laid down some dangerous propositions. Two years afterwards Mr Hoadly again entered the lists against this formidable antagonist; and in his exceptions against a sermon published by Dr Atterbury, entitled *The Power of Charity to cover Sin*, he attacked the doctor with his usual strength of reasoning and dispassionate inquiry. In 1709 another dispute arose between these two learned combatants concerning the doctrine of non-resistance, occasioned by a performance of Mr Hoadly's, entitled *The Measures of Obedience*; some positions in which Dr Atterbury endeavoured to confute in an elegant Latin sermon which he preached that year before the London clergy. In this debate Mr Hoadly signalised himself in so eminent a degree, that the House of Commons conferred on him a particular mark of respect, by representing, in an address to the queen, the signal services he had done to the cause of civil and religious liberty. The principles which he espoused, however, being repugnant to the general tem-

per of these times, drew on him the virulence of a party; yet it was at this period, 1710, when, as he himself expressed it, fury seemed to be let loose upon him, that Mrs Howland presented him to the rectory of Streatham in Surrey, unasked, unapplied to, and without his ever having seen his benefactress. Soon after the accession of King George I. Mr Hoadly was consecrated to the see of Bangor; and, in 1717, having broached some opinions concerning the nature of Christ's kingdom, he again became the object of popular clamour. At this juncture he was distinguished by a particular mark of the royal regard, inasmuch as the convocation was successively prorogued, nor was it permitted to sit, or to do any business, until that resentment had entirely subsided. In 1721 he was translated to Hereford; and from thence, in 1723, to Salisbury. In 1734 he was, on the demise of Dr Willis, translated to Winchester, and published his *Plain Account of the Sacrament*; a performance which served as a butt for his adversaries to shoot their arrows at, yet impartiality must own it to be clear, rational, and manly, written with candour and judgment, and suited to the capacity of every serious and considerate inquirer after truth. His latter days were embittered by an instance of fraud and ingratitude. The bishop took under his protection a French priest, who pretended to abjure his religion, and who had no other recommendation than that of his necessities. In return for this act of humanity, the priest found an opportunity of getting the bishop's name written by his own hand, and, causing a note of some thousand pounds to be placed before it, offered it in payment. But the bishop denying it to be his, it was brought before a court of justice, and was there found to be a gross imposition. The ungrateful villain had now recourse to a pamphlet, in which he charged the bishop with being a drunkard; and alleged that he had received the note from him when he was in liquor. To this calumny the bishop made a full and nervous answer, in which he exposed the man's falsehood, and solemnly averred that he was never drunk in his whole life. The world with becoming ardour embraced his defence, and he had the happiness to find himself perfectly acquitted even of any suspicion of such a charge. As a writer, he possessed uncommon abilities. But his style was defective and cumbrous, owing to the extreme length of his periods. His sermons, published in 1754 and 1755, are esteemed inferior to few writings in the English language, for plainness and perspicuity, energy and strength of reasoning, and a free and masterly manner. In private life he was naturally facetious, easy, and complying; and, though fond of company, accustomed frequently to retire for the purposes of study or devotion. He was everywhere happy,

Hoadly
Hobbes.

and particularly in his own family, where he took all opportunities of instructing by his influence and example. Bishop Hoadly died in 1761, aged eighty-three. Besides the works already mentioned, he wrote, 1. *Terms of Acceptance*, 8vo; 2. *Reasonableness of Conformity*; and 3. *On the Sacrament*. His tracts and pamphlets are extremely numerous. A complete edition of his works, in three volumes folio, was published by his son Dr John Hoadly, in 1773, with a short life of the author prefixed. The appendix to this edition contains some portion of his correspondence with Lady Sundon, formerly Mrs Clayton, bed-chamber woman to Queen Anne, and a person to whom he appears to have been chiefly indebted for his influence at court.

HOADLY, *Benjamin*, son of the former, was born in 1706, and studied at Bennet College, Cambridge, under the tuition of Dr Herring, afterwards archbishop of Canterbury. He took his degree in physic; and having, when young, applied himself to mathematical and philosophical studies, he was admitted a member of the Royal Society. He was made registrar of Hereford whilst his father filled that see, appointed physician to his majesty's household, and died at his house in Chelsea in 1757. He wrote, 1. *Three letters on the Organs of Respiration*, 4to; 2. *The Suspicious Husband*, a comedy; 3. *Observations on a series of Electrical Experiments*; 4. *Oratio Anniversaria*, in *Theatro Col. Med. Londin. ex Harvei instituto habita* 1742.

HOAIN-GAN-FOO, a large city of China, in the province of Kiangnan, situated on the bank of the great canal, which is above the level of the city, and occasions perpetual danger of inundation. It occupies a large area, including gardens and cultivated grounds; and, from the crowds of spectators seen by the British embassy, it seemed as if there was a numerous population. Long. 118. 47. E. Lat. 53. 30. N.

HOANGHO, or YELLOW RIVER, a great river of China, which has its rise in the unknown and mountainous regions of Thibet, probably the loftiest portion of the Asiatic continent. The Hoangho, after entering China, turns to the north, and flows even beyond the limits of the empire. But after winding for a short time, it re-crosses the frontier, and spreads fertility over some of the finest provinces of China. It falls into the Yellow Sea about the thirty-fourth degree of north latitude, at no very great distance from the Yang-tse-Kiang or Blue River, another of the vast streams by which China is watered. The course of the Hoangho is estimated, though with some uncertainty, to be in length about 1800 British miles. Though broad and rapid, it is in many places so shallow as to be unfavourable for navigation. It is also liable to overflow its banks; and it has been found necessary, in consequence, to protect the surrounding country against its inroads, by means of dikes and mounds.

HOARSENESS, in *Medicine*, a diminution of the voice, commonly attended with a great asperity and roughness of intonation. The parts usually affected are the *arteria aspera* and the *larynx*.

HOBAL, in *Mythology*, an idol of the ancient Arabs, the worship of which at Mecca was destroyed by Mahommed.

HOBBS, THOMAS, a metaphysical and political writer of the greatest eminence, was born at Malmesbury on the 5th of April 1588. He was the son of a clergyman; and having completed his studies at Oxford, he was appointed governor to the eldest son of William Cavendish, earl of Devonshire. He travelled with that young nobleman through France and Italy, and at length applied himself entirely to the study of literature. He translated Thucydides into English, and in 1628 published his translation, in order to show his countrymen, from the Athenian history, the disorders and confusions of a democrati-

cal government. In 1626 his patron the Earl of Devonshire died, and in 1628 the earl's son also died; a loss which affected Mr Hobbes to such a degree, that he willingly accepted an offer made him of going abroad a second time with the son of Sir Gervase Clifton, whom he accordingly accompanied to France. But whilst he resided there, he was solicited to return to England, and resume his charge of the hope of that family to which he had so early attached himself. In 1631 the Countess Dowager of Devonshire desired to put under his care the young earl, who was then about the age of thirteen. This proved agreeable to the inclinations of Mr Hobbes, who discharged the trust with great diligence and fidelity. In 1634 he republished his translation of Thucydides, and prefixed to it a dedication to that young nobleman, in which he gives a high character of his father, and represents in the strongest terms the obligations he was under to the Devonshire family. The same year he accompanied his pupil to Paris, where he applied his leisure hours to the study of natural philosophy, and more especially to the understanding of mechanism, and the causes of animal motion. Upon these subjects he had frequent conversations with Father Mersenne, a man deservedly celebrated, and who maintained a correspondence with almost all the learned in Europe. From Paris he accompanied his pupil to Italy, where, on visiting Pisa, he became known to Galileo, who freely communicated to him his discoveries; and after having seen all that was remarkable in that country, he returned with the Earl of Devonshire to England. Afterwards, foreseeing the civil wars, he went to seek a retreat at Paris, where, by the good offices of his friend Father Mersenne, he became known to Descartes, and afterwards corresponded with him upon several mathematical subjects, as appears from the letters of Mr Hobbes published in the works of Descartes. But when this philosopher afterwards printed his *Meditations*, in which he attempted to establish points of the highest consequence, on the assumption of innate ideas, Mr Hobbes took the liberty of dissenting from him; and so also did Gassendi, with whom Mr Hobbes contracted a very intimate friendship, which was not interrupted till the death of the former. In 1642 Mr Hobbes printed a few copies of his book *De Cive*, which, in proportion as it became known, raised him many adversaries, who charged him with instilling principles which had a dangerous tendency. Amongst many illustrious persons who, upon the shipwreck of the royal cause, retired to France for safety, was Sir Charles Cavendish, brother of the Duke of Newcastle; and this gentleman, being skilled in every branch of the mathematics, proved a constant friend and patron of Mr Hobbes, who, having in 1645 embarked in a controversy about squaring the circle, became so celebrated, that in 1647 he was recommended to instruct the Prince of Wales, afterwards Charles II., in mathematical learning. His diligence in the discharge of this office gained him the esteem of that prince; and though he afterwards withdrew his public favour from Mr Hobbes on account of his writings, yet he always retained a sense of the services which the latter had rendered him, showed him various marks of favour after the Restoration, and, as some say, had his picture suspended in his closet. This year also was printed in Holland, under the care of Sorbière, a second and more complete edition of the treatise *De Cive*, to which are prefixed two Latin letters to the editor, the one by M. Gassendi, the other by Father Mersenne, in commendation of it; and in 1650 was published at London his small but profound and original treatise on Human Nature, with another *De Corpore Politico*, or on the Elements of the Law.

All this time Mr Hobbes had been occupied in digesting his religious, political, and moral principles into a

Hobbes.

Hobbes complete system, which he called *Leviathan*, and which was printed in English at London in 1650 and 1651. After the publication of his *Leviathan* he returned to England, and passed the summer commonly at the seat of his patron the Earl of Devonshire, in Derbyshire, and spent some of his winters in town, where he had as his intimate friends some of the greatest men of the age. Upon the occurrence of the Restoration in 1660, he repaired to London, where he obtained from the king assurance of protection, and had an annual pension of £100 settled upon him out of the privy purse. Yet even this did not render him entirely safe; for, in the year 1666, his *Leviathan* and his treatise *De Cive* were censured by parliament; a circumstance which, taken in connexion with the bringing in of a bill into the House of Commons to punish atheism and profaneness, gave him serious alarm. When the storm had blown over, however, he began to think of publishing a beautiful edition of his pieces in Latin; but finding this impracticable in England, he caused it to be undertaken abroad, where they were published in three volumes quarto in 1668, from the press of John Bleau. In 1669 he was visited by Cosmo de' Medicis, then prince, and afterwards Duke of Tuscany, who gave him ample proofs of esteem and respect, and having received his picture, with a complete collection of his writings, caused them to be deposited, the former amongst his curiosities, and the latter in his noble library at Florence. He received similar visits from foreign ambassadors and other strangers of distinction, who were curious to see a person whose singular opinions and numerous writings had made so much noise all over Europe. In 1672 he wrote his own life in Latin verse, when he had completed his eighty-fourth year; and, in 1674, he published, in English verse, four books of Homer's *Odyssey*, which was so well received, that it encouraged him to undertake the whole *Iliad* and *Odyssey*, both of which he translated and published in 1675. About this time he took leave of London, and went to spend the remainder of his days in Derbyshire. He died on the 4th of December 1679, aged ninety-two.

As to his deportment and manners, they are thus described by Dr White Kennet, in his *Memoirs of the Cavendish family*. "The Earl of Devonshire," says he, "for his whole life entertained Mr Hobbes in his family, as his old tutor rather than as his friend or confidant. He let him live under his roof in ease and plenty, and in his own way, without making use of him in any public, or so much as domestic affairs. He would frequently put off the mention of his name, and say, 'He was a humorist, and nobody could account for him.' There is a tradition in the family, of the manners and customs of Mr Hobbes, somewhat observable. His professed rule of health was to dedicate the morning to his exercise, and the afternoon to his studies. And therefore, at his first rising, he walked out, and climbed any hill within his reach; or, if the weather was not dry, he fatigued himself within doors by some exercise or other, to be in a sweat; recommending that practice upon this opinion, that an old man had more moisture than heat, and therefore by such motion heat was to be acquired and moisture expelled. After this, he took a comfortable breakfast; and then went round the lodgings to wait upon the earl, the countess, and the children, and any considerable strangers, paying some short addresses to all of them. He kept these rounds till about twelve o'clock, when he had a little dinner provided for him, which he ate always by himself without ceremony. Soon after dinner he retired to his study, and had his candle, with ten or twelve pipes of tobacco laid by him; then shutting his door, he fell to smoking, thinking, and writing for several hours. He retained a friend or two at court, and especially the Lord Arlington, to protect him if occasion should require. He used to say, that it was

lawful to make use of ill instruments to do ourselves good: 'If I were cast,' says he, 'into a deep pit, and the devil should put down his cloven foot, I would take hold of it to be drawn out by it.' After the Restoration, he watched all opportunities to ingratiate himself with the king and his prime ministers; and looked upon his pension to be more valuable, as an earnest of favour and protection, than upon any other account. His future course of life was to be free from danger. He could not endure to be left in an empty house. Whenever the earl removed, he would go along with him, even to his last stage, from Chatsworth to Hardwick. When he was in a very weak condition, he dared not to be left behind, but made his way upon a feather-bed in a coach, though he survived the journey but a few days. He could not bear any discourse of death, and seemed to cast off all thoughts of it. He delighted to reckon upon longer life. The winter before he died, he made a warm coat, which he said must last him three years, and then he would have such another. In his last sickness his frequent questions were, Whether his disease was curable? and when intimations were given that he might have ease, but no remedy, he used this expression, 'I shall be glad to find a hole to creep out of the world at;' which are reported to have been his last sensible words; and his lying some days following in a silent stupefaction, did seem owing to his mind more than to his body."

Lord Clarendon says of him, that he "was a man for whom he had a great esteem, and who was always regarded as a person of probity, and of a life free from scandal." As to his character as a philosopher and political writer, it is only necessary here to refer to the admirable sections regarding him in the *Dissertations* by Mr Stewart and Sir James Mackintosh, prefixed to this work. A collection of his "moral and political" writings, comprised in a folio volume, was published at London in the year 1750.

HOBGOBLIN is a name vulgarly applied to spectres or apparitions. Skinner calls the word *roboblins*, and derives it from Robin Goodfellow, Hob being the nickname of Robin; but Wallis and Junius, with greater probability, derive it from *hoppobblins*, because they are supposed to hop without moving both their feet.

HOBLERS, or **HOBILERS**, *Hobelarii*, in our ancient customs, were men who, by their tenure, were obliged to maintain a light horse or hobby, for announcing any invasion from the seaward. The name was also employed to signify certain Irish knights, who used to serve as light horsemen upon hobbies.

HOB-NAIL, a nail with a thick strong head, used in shoeing a hobby or little horse.

HOB-NOB, or **HAB-NAB**, a cant word formed from *hap ne hap*, and denoting an event which happens at random, or by mere chance.

HOBSON'S CHOICE, a vulgar proverbial expression, applied to that kind of choice in which there is no alternative. It is said to be derived from the name of a carrier at Cambridge, who let out hackney horses, and obliged each customer to take in his turn that horse which stood next the stable door.

HOCHHEIM, a market-town of the duchy of Nassau, in Germany, the capital of a bailiwick of the same name. It stands on an elevated spot, at the junction of the Nidda with the Maine. It contains a church, and 440 houses, with 1850 inhabitants. The neighbourhood is celebrated for producing the best wines of the Rhine, which have generally been known in England by the name of Hock. That of peculiar excellence is, however, the growth of a particular vineyard, which is not more than ten acres in extent, and sells, even when new, at a very high price.

HOCHOU, a walled city of China, in the province of

Hobgoblin
||
Hochou.

Hochstedt Kiangnan, about three miles from the banks of the Yangtse-Kiang. It appears to be about three or four miles in circuit, and to have been at one time more populous than at present. The country around is highly cultivated. It is thirty miles south-west of Nanking. Long. 118. 14. E. Lat. 29. 57. N.

Hody.

HOCHSTEDT, a town of Bavaria, the capital of the bailiwick of the same name in the circle of the Upper Danube. It stands on the Danube, and contains two churches, 396 houses, and 2240 inhabitants. It is celebrated as the scene of one of Marlborough's most splendid victories gained in 1704, and as the field of defeat of the Austrians by the French in 1800. Long. 10. 28. 25. E. Lat. 48. 36. 30. N.

HOCUS POCUS, a cant expression, with which the exhibitors of legerdemain tricks generally prefaced their feats. This term is supposed to be a corruption of the words *hoc est corpus*.

HOD, a sort of tray for carrying mortar, in use among bricklayers.

HODDESDON, a town of the county of Hertford, in the parishes of Amwell and Brockborn, seventeen miles from London. It stands on the river Lea, and on the great road to the eastern counties. It consists of one long street, in the middle of which is a fountain that supplies the town with water. There is a market which is held on Wednesday. The inhabitants amounted in 1801 to 1221, in 1811 to 1249, in 1821 to 1354, and in 1831 to 1615.

HODMAN, a cant term formerly used for a young scholar admitted from Westminster school to be student in Christ Church in Oxford.

HODNET, a town, or rather a parish, in the hundred of North Bradford, in the county of Salop, on the river Terne, 185 miles from London. It is only remarkable as the birth-place and residence of the late Bishop of Calcutta, Heber. The inhabitants amounted in 1801 to 1386, in 1811 to 1499, in 1821 to 1795, and in 1831 to 1769.

HODY, HUMPHRY, an eminent English divine, was born at Odcombe, in Somersetshire, on the 1st of January 1659. Whilst yet a boy he discovered a strong propensity to learning, and in 1676 was admitted into Wadham College, Oxford, of which he was chosen fellow in 1684. At the age of twenty-one he published his Dissertation against the History of the Seventy-two Interpreters by Aristæus. In this production Hody shows that the story told by Aristæus as to the occasion of the Septuagint translation is the invention of some Hellenist Jew; that it is full of blunders and anachronisms; and that it was originally circulated on purpose to recommend the Greek version of the Old Testament. This dissertation was received with much approbation by the learned, excepting Isaac Vossius, who having espoused the contrary, could not endure to see a mere youth enter the lists against one of his age and reputation in letters. He therefore published an appendix to his Observations on Pomponius Mela, containing an answer to Hody's Dissertation, in which, neglecting arguments, he contents himself with indulging in the utmost petulance and scurrility towards his opponent. In 1704, Hody published his four books *De Bibliorum textis originalibus, versionibus Græcis, et Latina Vulgata*; the first containing his dissertation on Aristæus's history, the second treating of the true authors of the Greek version called the Septuagint; the third comprising a history of the Hebrew text, the Septuagint version, and the Latin Vulgate; and the fourth giving an account of the other Greek versions, namely, those of Symmachus, Aquila, and Theodotion, with the *Hexapla* of Origen, and other ancient editions. In 1689, Hody wrote the Prolegomena to the Chronicle of John Malela, printed at Oxford; and in 1690 he was made chaplain to Stillingfleet, bishop of Worcester. The deprivation of the nonjuring bishops involved him in a controversy with Mr Dodwell, and gave occa-

sion to a number of polemical pieces, which have long ceased to possess any interest. The part which he took in this controversy, however, recommended him to Archbishop Tillotson, who appointed him his domestic chaplain, an office which he continued to hold under Dr Tennyson, Tillotson's successor. In 1698 he was appointed regius professor of Greek in the university of Oxford, and in 1704 he was instituted to the archdeaconry of the same place. But he did not long survive these preferments, having died on the 20th of January 1705. Hody left behind him in manuscript a valuable work, comprising the substance of his lectures as professor, and containing an account of those learned Greeks who retired to Italy before and after the taking of Constantinople by the Turks, and there revived the study of the language and literature of Greece, which had long been entirely neglected. This work was published in 1742 by Dr Jebb, and entitled *De Græcis Illustribus linguae Græcæ literarumque humaniorum instauratoribus, eorum vitis, scriptis, et elogiis libri duo*; prefixed to which is an account in Latin of the author's life, extracted from a manuscript in English left by himself. (A.)

HOE, or **How**, a husbandman's tool, made like a cooper's adze, to cut up weeds in gardens, fields, &c.

HOF, a city of Bavaria, in the circle of Upper Maine. It is situated on the river Saale, is surrounded with walls, and is the seat of the revenue officer of the circle. It contains four churches, an orphan-house, an hospital richly endowed, and 650 houses, with 5730 inhabitants, who find occupation in manufactures of woollen, linen, and cotton goods, and in breweries, distilleries, and paper-making.

HOFFMANN, JOHN JAMES, a celebrated philologist, was born at Basil in 1635. His father, who was professor of law in the academy of that city, inspired him betimes with a taste for application, and directed his early studies. Young Hoffmann went through his courses of philosophy and theology with distinction, and was ordained to the holy ministry. But as the delicacy of his health did not admit of his pursuing that career, he applied himself to teaching; and after having, for several years, given private instructions, he was, in 1667, appointed to the chair of Greek in the academy, whence he was, in 1683, translated to that of history, the duties of which he discharged with indefatigable zeal until his death, which occurred in 1706, without his having ever quitted his native country. The best known of all his works is the *Lexicon Universale, Historico-Geographico-Chronologico-Poetico Philologicum*, Basil, 1677, in two volumes folio, with a Supplement, also in two volumes, 1683. The work at first met with indifferent success. This dictionary is constructed upon a very extensive plan; but all the parts leave much to be desired. The articles on ancient geography are considered as the best; those on history are superficial and inaccurate. The title of the book announces various synonymes of geographical names derived from twenty different languages; but the execution does not come up to the announcement. The author omits no opportunity to declaim against the Catholic religion and against France. The other works of Hoffmann are, 1. Numerous Theses on subjects of little or no interest; 2. A Collection of Poems, *Poemata*, Basil, 1684, in 12mo; 3. Epitome metrica Historiæ Universalis civilis et sacræ ab orbe condito, ibid. 1686, in 12mo; 4. *Historia Paparum*, 1687, in two vols. 12mo; 5. Two Memoirs on the *Miscellanea Berolinensia*. (A.)

HOFFMANN, Frederick, a celebrated physician of the university of Halle in Saxony, was born in that city in 1660. He received his early education in his native town, and made great progress in the mathematics, which his parents had caused him to study, and to which he ascribed advances in the study of medicine. At the age of fifteen he lost both his father and his mother during the preva-

Hoe
Hoffmann.

lence of an epidemical distemper. In 1680, he established himself at Erfurt, there to study chemistry under Gaspar Cramer, and the following year he received the degree of doctor of physic at Iena. In 1682, he published an Essay *De Cinnabari Antimonii*, which was reprinted at Leyden in 1685, 12mo, and laid the foundation of his reputation as an able chemist, which he afterwards increased by professing chemistry in the schools of Iena. It is to him we are indebted for the preparation known by the name of the Anodyne Liquor of Hoffmann, which is considered as one of the best sedatives. Frederick III. elector of Brandenburg, having founded the university of Halle in 1693, Hoffmann was appointed primarius professor, and alone prepared the statutes of the faculty of medicine. His fame soon spread throughout all Germany, and thence into foreign parts; and several learned bodies, including the academies of Berlin and Petersburg, and the Royal Society of London, enrolled him among their members. During his residence at Halle he divided his time between instruction, practice, and study; but more than once he interrupted his pursuits by visits to the different courts of Germany, where his professional successes procured him honours, titles, and rewards. He was solicited by the king of Prussia to fix his residence at Berlin; but he preferred remaining in his native country, where he died on the 12th of November 1742. At the age of sixty Hoffmann undertook his great work entitled *Medicina Rationalis Systematica*, Halle, 1730, in nine vols. 4to, of which Bruhier d'Ablaincourt has given a translation under the title of *Médecine Raisonnée d'Hoffmann*, 1739, in nine vols. 12mo. The same physician has also translated from the Latin of Hoffmann, a Treatise on Fevers, Paris, 1746, in three vols. 12mo; the Politics of Medicine, *ibid.* 1751, in 12mo; and Observations on the Cure of Gout and Rheumatism. A complete edition of his works has been published, with a life of the author, under the title of *Hoffmanni Opera omnia Medico-physica cum Supplementis*, Geneva, 1740, 1755, eleven parts, in folio. The writings of Hoffmann contain a great mass of practical matter of considerable value, partly compiled from preceding writers, and partly the result of his own observation; but they are also deformed by trifling remarks, hypothetical conjectures, and frequent prolixity and repetition in the details. As a theorist, his suggestions proved of great importance, and contributed to introduce that revolution in the science of medicine which subsequent observation has extended and confirmed. His doctrine of atony and spasm in the living solid, according to which all internal disorders were referred to some preternatural affection of the nervous system, rather than to the morbid derangements of the fluids, first turned the attention of physicians from the mere mechanical and chemical operations of the body, to those of the primary moving powers of the living system. Hoffmann pursued with considerable ardour the study of practical chemistry, and improved the department of pharmacy by the addition of some mineral preparations. But, upon the whole, his practice was cautious, especially in his latter years; and he trusted much to vegetable simples. "I affirm solemnly," said he, "that though in my youth I ran much after chemical remedies, yet, in my age, I became convinced that very few remedies, well selected, and derived from substances in appearance the most worthless, afford more prompt and efficacious relief to the sick than the rarest and most elaborate chemical preparations." (A.)

HOFFMANNISTS, in *Ecclesiastical History*, are those sectaries who espoused the sentiments of Daniel Hoffmann, professor in the university of Helmstadt, who maintained that philosophy was a mortal enemy to religion, and that what was true in philosophy was false in theology. These absurd and pernicious tenets occasioned a warm controversy; but Hoffmann was at length compelled by Julius

duke of Brunswick to retract his invectives against philosophy, and to acknowledge, in the most open manner, the harmony and union of sound philosophy with true and genuine theology.

HOFGEISMAR, a city of the principality of Hesse Cassel, in the province of the Lower Hesse. It is on the river Esse, is walled, and has two churches, an hospital, and stadthouse, with 420 dwellings, and 2586 inhabitants.

HOG. See MAMMALIA.

HOG ISLE. There are two small islands of this name in the Eastern Seas, one about twenty miles in circumference, lying off the north-eastern extremity of Java. Long. 114. 55. E. Lat. 7. 5. S. This is also the name of another island, sixty miles off the west coast of Sumatra, about forty miles in length, and three in average breadth.

HOGARTH, WILLIAM, an artist, a truly great and original genius, was born in 1697 or 1698, in the parish of St Martin, Ludgate. The outset of his life, however, was unpromising. "He was bound," says Lord Orford, "to a mean engraver of arms on plate." Hogarth probably chose this occupation as it required some skill in drawing, to which his genius was particularly turned, and which he contrived assiduously to cultivate. His master was Mr Ellis Gamble, a silversmith of eminence, who resided in Cranburn Street, Leicester Fields. In this profession it is not unusual to bind apprentices to the single branch of engraving arms and ciphers on every species of metal; and in that particular department of the business young Hogarth was placed; but, before his time had expired, he felt the impulse of genius, and it directed him to painting. During his apprenticeship, he set out one Sunday, with two or three companions, on an excursion to Highgate. The weather being hot, they went into a public house, where they had not been long before a quarrel arose between some persons in the same room, and one of the disputants having struck the other on the head with a quart pot, cut him very much. The blood running down the man's face, together with the agony of the wound, which distorted his features into a most hideous grin, presented Hogarth, who showed himself thus early sensible of the course which Nature had intended he should pursue, with too laughable a subject to be overlooked. He drew out his pencil, and produced on the spot one of the most ludicrous figures that ever was seen. What rendered this piece the more valuable was, that it exhibited an exact likeness of the man, with the portrait of his antagonist, and the figures in caricature of the principal persons collected around him.

How long he continued in obscurity has not been ascertained; but the first piece in which he distinguished himself as a painter is supposed to have been a representation of Wanstead Assembly. The figures contained in it were, it seems, drawn from the life, and without any circumstances of burlesque. The faces were said to be extremely like, and the colouring rather better than in some of his later and more highly finished performances. From the date of the earliest plate that can be ascertained as his work, it may be presumed that he began business on his own account at least as early as 1720.

His first employment seems to have been the engraving of arms and shop-bills; his next, to design and furnish plates for booksellers. Mr Bowles, at the Black Horse in Cornhill, was one of his earliest patrons, but the prices paid by that person were very low. His next friend in this line was Mr Philip Overton, who paid him somewhat better for his labour and ingenuity.

There are still existing many family pictures by Hogarth, in the style of serious conversation-pieces. What the prices of his portraits were, Mr Nichols tried in vain to discover; but he suspects that they were originally very low, as the people who are best acquainted with them choose to be silent on that subject.

Hogarth. Lord Orford has remarked, that if our artist indulged his spirit of ridicule in personalities, it seldom proceeded beyond sketches and drawings; and wonders that he never, without intention, delivered the very features of any identical person. But Mr Nichols assures us, from unquestionable authority, that almost all the personages who attended the levee of the Rake were undoubted portraits; and that in Southwark Fair, and the Modern Midnight Conversation, as many more were discoverable. Whilst Hogarth was painting the Rake's Progress, he had a summer residence at Isleworth; and he never failed to question the company who came to see these pictures, if they knew for whom one or another figure was designed. When they guessed wrong, he set them right.

The Duke of Leeds possessed an original scene in the Beggar's Opera, painted by Hogarth. It is that in which Lucy and Polly are on their knees before their respective fathers, to intercede for the life of the hero of the piece. All the figures are either known or supposed to be portraits. Lord Orford had a picture of a scene in the same piece, where Macheath is going to execution. In this also the likenesses of Walker, and Miss Fenton, afterwards Duchess of Bolton, the first and original Macheath and Polly, were preserved.

In 1730 Mr Hogarth married the only daughter of Sir James Thornhill, by whom, however, he had no children. This union, indeed, was a stolen one, and consequently without the approbation of Sir James, who, considering the youth of his daughter, then scarcely eighteen, and the slender finances of her husband, as yet an obscure artist, was not easily reconciled to the match. Soon after this period, however, he began his Harlot's Progress; and was advised by Lady Thornhill to have some of the scenes of it placed in the way of his father-in-law. Accordingly, one morning early, Mrs Hogarth undertook to convey several of them into her father's dining-room. When he arose, he inquired whence they had come; and being told by whom they were introduced, he cried out, "Very well; the man who can furnish representations like these can also maintain a wife without a portion." He designed this remark as an excuse for keeping his purse-strings close; but soon afterwards he became both reconciled and generous to the young people.

In 1732 Hogarth ventured to attack Mr Pope, in a plate called the Man of Taste, containing a view of the Gate of Burlington House, with Pope whitewashing it, and bespattering the Duke of Chandos's coach. This plate was intended as a satire on the translator of Homer, Mr Kent the architect, and the Earl of Burlington. It was fortunate for Hogarth that he escaped the sting of the "wasp of Twickenham." Either Hogarth's obscurity at that time was his protection, or the poet was too prudent to exasperate a painter who had already given such proof of his abilities for satire.

In 1733 his genius became conspicuously known. The third scene of his Harlot's Progress introduced him to the notice of the great. At a meeting of the treasury board, which was held a day or two after the appearance of that print, a copy of it was shown by one of the lords, as containing, amongst other excellencies, a striking likeness of Sir John Gonson. It gave universal satisfaction. From the treasury each lord repaired to the print-shop for a copy of it, and Hogarth immediately rose into fame.

The Abbé Dubos has complained that no historical painter of his time went through a series of actions, and thus, like an historian, painted the successive fortunes of a hero from the cradle to the grave. What Dubos wished to see done, Hogarth performed. He launched out his young adventurer a simple girl upon the town, and conducted her through all the vicissitudes of wretchedness to a premature death. This was painting to the understand-

ing and to the heart; none had ever before made the pencil subservient to the purposes of morality and instruction. A book like this is fitted to every soil and to every observer; he that runs may read it. Nor was the success of Hogarth confined to his persons. One of his excellencies consisted in what may be termed the furniture of his pieces. As, in sublime and historical representations, the fewer trivial circumstances are permitted to divide the spectator's attention from the principal figures, the greater is their force, so, in scenes copied from familiar life, a proper variety of little domestic images contributes to throw an air of verisimilitude over the whole. "The Rake's levee-room," says Lord Orford, "the nobleman's dining-room, the apartments of the husband and wife in *Marriage-à-la-Mode*, the alderman's parlour, the bed-chamber, and many others, are the history of the manners of the age."

In 1745 Hogarth sold about twenty of his capital pictures by auction; and in the same year he acquired additional reputation by the six prints of *Marriage-à-la-Mode*, which may be regarded as the groundwork of a novel called the *Marriage Act*, by Dr Shebbeare, and also of the *Clandestine Marriage*. The prints, however, possess far more of the true spirit of comedy than either the novel or the play; they are amongst the most masterly productions of this great dramatic painter of life and manners.

Soon after the peace of Aix-la-Chapelle he went over to France, and was taken into custody at Calais whilst he was drawing the gate of that town; a circumstance which he has recorded in his picture entitled *O the Roast Beef of Old England*, published in 1749.

In 1753 he appeared to the world in the character of an author, and published a quarto volume, entitled *Analysis of Beauty*, written with a view of fixing the fluctuating ideas of taste. In this performance he shows, by a variety of examples, that a curve is the line of beauty, and that round swelling figures are most pleasing to the eye; and the truth of his opinion has been countenanced by subsequent writers on the subject. In this work he acknowledges himself indebted for assistance to his friends, particularly to one gentleman for his corrections and amendments of at least a third part of the *wording*. This friend was Dr Benjamin Hoadly, the physician, who carried on the work to about the third part, and then, through indisposition, declined with regret the friendly office. The kind office of finishing the work, and superintending the publication, was assumed by Dr Morell, who superintended the remainder of the book. The preface was in like manner corrected by the Reverend Mr Townley. The family of Hogarth rejoiced when the last sheet of the *Analysis* was printed off, as the frequent disputes he had with his coadjutors, in the progress of the work, did not much harmonize his disposition. This work was translated into German by Mr Mylius, under the author's inspection; and the translation was printed in London. A new and correct edition was in 1754 proposed for publication at Berlin by Volk, with an explanation of Mr Hogarth's satirical prints, translated from the French; and an Italian translation was published at Leghorn in the year 1761.

This work may be considered as in many respects remarkable, emanating as it did from one who was totally illiterate, and who, in all probability, had never before attempted to throw together his ideas upon any subject of importance. But although his general principle is right, considered merely as expressing a *fact*, and although the feeling or sentiment which we call beauty is generally excited in the mind by objects bounded by curve lines, yet neither Hogarth himself, nor any of those persons who assisted him in the composition of his work, ever perceived that external objects are beautiful or the reverse,

Hogarth. not because they possess this or that form, but in proportion as they are associated with, or regarded as the natural signs and emblems of, ideas or emotions which we denominate beautiful or otherwise; that the curve, considered *per se*, is not more beautiful than the angular line; that, in applying this epithet to the former, we do so, not because it is a curve, but because it suggests to the perceptive mind the idea of easy, gentle, flowing motion, or some other that is calculated to excite in it the feeling which we denominate beauty; that the sentiment of beauty is a reflected image of some pleasing emotion, softened and subdued by the awakened reminiscence; that the whole, therefore, resolves into the great law of association, by means of which one thing becomes the occasion of resuscitating another in the mind; and that external objects or external forms are not of themselves beautiful or deformed, but are so called only in proportion as they are the natural signs of, and serve to recall, emotions of a pleasing character, or the contrary. But this was a discovery reserved for other and more philosophical inquirers.

Hogarth affected to despise every kind of knowledge which he did not possess. Having established his fame with little or no obligation to literature, he either conceived it to be useless, or decried it because it lay altogether out of his reach. Till he commenced author, and was obliged to employ the friends already mentioned to correct his *Analysis of Beauty*, he did not seem to have discovered that even spelling was a necessary qualification in a writer. Previously to the time of which we are now speaking, one of his common topics of declamation was the uselessness of books to a man of his profession. In Beer Street, amongst other volumes consigned by him to the pastry-cook, we find Turnbull on Ancient Painting; a treatise which Hogarth should have been able to understand before he ventured to condemn it.

About 1757, his brother-in-law, Mr Thornhill, resigned the place of king's serjeant-painter in his favour.

The last remarkable circumstance of his life was his contest with Churchill. It is said that both met at Westminster Hall; Hogarth to take by his eye a ridiculous likeness of the poet, and Churchill to furnish a description of the painter. But Hogarth's print of the poet was not much esteemed, and the poet's letter to him was but little admired. When genius is forced to minister to the gratification of the baser passions, its efforts are seldom successful.

It may be truly observed of Hogarth, that all his powers of delighting were limited to his pencil. Having rarely been admitted into polite circles, none of his sharp corners had been rubbed off, and he continued to the last a rough, uncultivated man. The slightest contradiction transported him into rage. To some confidence in himself he was certainly entitled, for, as a comic painter, he could have claimed no honour that would not most readily have been allowed him; but he was at once unprincipled and variable in his political conduct and private attachments. He is also said to have beheld the rising eminence and popularity of Sir Joshua Reynolds with envy, and he frequently spoke with asperity both of the painter and his performances. Justice, however, obliges us to add, that he was liberal and hospitable; and that, in spite of the emoluments which his works had procured to him, he left but an inconsiderable fortune.

Of Hogarth's lesser plates many were destroyed. When he wanted, on a sudden, a piece of copper, he would take any from which he had already worked off such a number of impressions as he supposed he would sell. He then sent it to be effaced, beaten out, or otherwise altered to his present purpose. The plates which remained in his possession were secured to his widow by his will, dated the

12th of August 1764, chargeable with an annuity of eighty pounds to his sister. He died in the month of October of that year.

The character of Hogarth as an artist is delineated by Mr Gilpin in his *Essay on Prints*. "The works of this master," says Mr Gilpin, "abound in true humour, and satire which is generally well directed; they are admirable moral lessons, and a fund of entertainment suited to every taste; a circumstance which shows them to be just copies of nature. We may consider them too as valuable repositories of the manners, customs, and dresses of his age."

"In design Hogarth was seldom at a loss. His invention was fertile, and his judgment accurate. An improper accident is rarely introduced, a proper one rarely omitted. No one could tell a story better, or make it, in all its circumstances, more intelligible. His genius, however, it must be owned, was suited only to low or familiar subjects; it never soared above common life; to subjects naturally sublime, or which from antiquity or other accidents borrowed dignity, he could not rise. In composition we see little in him to admire. In many of his prints the deficiency is so great as plainly to imply a want of all principle, which makes us ready to believe, that when we do meet with a beautiful group, it is the effect of chance. In one of his minor works, the *Idle Prentice*, we seldom see a crowd more beautifully managed than in the last print. If the sheriff-officers had not been placed in a line, and had been brought a little lower in the picture, so as to have formed a pyramid with the cart, the composition had been unexceptionable; and yet the first print of this work is such a striking instance of disagreeable composition, that it is amazing how an artist who had any idea of beautiful forms could suffer so unmasterly a performance to leave his hands. Of the distribution of light Hogarth had as little knowledge as of composition. In some of his pieces we see a good effect, as in the *Execution* just mentioned; in which, if the figures at the right and left corners had been kept down a little, the light would have been beautifully distributed on the fore-ground, and a fine secondary light spread over part of the crowd. But at the same time there is so obvious a deficiency in point of effect in most of his prints, that it is very evident he had no principles. Neither was Hogarth a master in drawing. Of the muscles and anatomy of the head and hands he had perfect knowledge, but his trunks are often badly moulded, and his limbs ill set on; yet his figures, upon the whole, are inspired with so much life and meaning, that the eye is kept in good humour in spite of its inclination to find fault. The author of the *Analysis of Beauty*, it might be supposed, would have given us more instances of grace than we find in the works of Hogarth; which shows strongly that theory and practice are not always united. Many opportunities his subjects naturally afford of introducing graceful attitudes, and yet we have very few examples of them. With instances of picturesque grace his works abound. Of this expression, in which the force of his genius lay, we cannot speak in terms too high. In every mode of it he was truly excellent. The passions he thoroughly understood, and all the effects which they produce in every part of the human frame. He had the happy art also of conveying his ideas with the same precision with which he conceived them. He was excellent too in expressing any humorous oddity which we often see stamped upon the human face. All his heads are cast in the very mould of nature. Hence that endless variety which is displayed throughout his works; and hence it is that the difference arises between his heads and the affected caricatures of those masters who have sometimes amused themselves with patching together an assemblage of features from their own ideas. Such are Spaniolet's, which, though admirably executed, appear plainly to have

Hoggry no archetypes in nature. Hogarth's, on the other hand, are collections of natural curiosities. The Oxford Heads, the Physicians' Arms, and some of his other pieces, are expressly of this humorous kind. They are truly comic, though ill-natured effusions of mirth; more entertaining than Spaniolet's, as they are pure nature, but less innocent, as they contain ill-directed ridicule. But the species of expression in which this master perhaps most excels, is that happy art of catching those peculiarities of art and gesture which the ridiculous part of every profession contract, and which for that reason become characteristic of the whole. His counsellors, his undertakers, his lawyers, his usurers, are all conspicuous at sight. In a word, almost every profession may see in his works that particular species of affectation which they should most endeavour to avoid. The execution of this master is well suited to his subjects and manner of treating them. He etches with great spirit, and never gives one unnecessary stroke."

Hohenzollern-Hechingen.

In Mr Ireland's *Hogarth Illustrated*, there is an account of all his prints; but the best and fullest description of them is to be found in Mr Nichols's *Memoirs of his Life and Works*, in which there are copies of all his prints, accurately reduced.

HOGGRY, a river of Hindustan, which has its rise in the Mysore territory, near the fortress of Seva, whence it flows in a northerly direction, and joins the Krishna or Kistnah.

HOGSHEAD, in *Commerce*, a measure of capacity containing sixty-three gallons, equal to sixteen gallons in Scotland.

HOGYESK, a market-town of the circle of Toln, in the province of the Farther Danube, in the kingdom of Hungary. Near to it is the castle, with a fine park of Count Apony. It contains 3100 inhabitants, employed in the cultivation of tobacco and wine.

HOHENELBE, a town of the circle of Bidschow, in the Austrian kingdom of Bohemia. It is situated in a mountainous district, on the river Elbe, near the frontier of Saxony. • It contains two churches, 357 houses, and 3307 inhabitants, who carry on a flourishing trade in manufacturing muslins, linen goods, and writing paper.

HOHENGOLDSECK, a small territory denominated a *grafschaft* or county, belonging to the empire of Austria. It is the only part of the dominion detached from the rest, and is surrounded by the territory of the Prince of Baden. It extends over fifty square miles, and contains about 5000 inhabitants. It is composed chiefly of hills, which form part of the Black Forest, the highest of which, called the Schimburg, has an extensive prospect over the Rhine. There are in it some mines of lead and silver. The soil is fruitful in corn, and the valleys afford good pasturage.

HOHENSTEIN, a city of the kingdom of Saxony, in the circle of Freyburg, formerly the capital of the mediatised principality of the same name. It stands on the side of a remarkable mountain, in which are veins of gold, silver, and arsenic. It contains 450 houses, and 3400 inhabitants, some employed in the mines, but more in spinning and weaving cotton goods.

HOHENZOLLERN-HECHINGEN, a sovereign principality in the ancient division of Suabia, in Germany. It is surrounded by the kingdom of Wurtemberg, except towards the south, where it is bounded by the principality of Hohenzollern-Sigmaringen. It extends over 120 square miles, and comprehends one town and fourteen parishes, with 14,900 inhabitants. It is generally a hilly country, some of the most lofty points being 2600 feet above the sea. It is moderately fertile, but a part is covered with woods. It is watered by only small brooks, some of which run to the Danube, and others to the Neckar. The re-

venue amounts to about L.12,000 annually, and the debt is heavy, which the prince is lessening by contracting the expenditure. The chief products of the land are wood, potatoes, flax, hemp, and more especially gentian. The people find some employment in making wooden toys and articles of household furniture. The military contingent to the German confederation is 145 men.

HOHENZOLLERN-SIGMARINGEN, a sovereign principality in the south of Germany. Except on the north side, where it is bounded by Hohenzollern-Hechingen, it is surrounded by the kingdom of Wurtemberg and the duchy of Baden. It is 400 square miles in extent, and contains four cities, seven market-towns, and seventy villages and hamlets, formed into forty parishes. It contains 7100 houses, and 38,000 inhabitants. The land is mountainous and woody, and the soil mixed with many stones; but the valleys afford good pasture and dairy land, especially on the banks of the rivers. The Danube, here a small stream, receives the waters of all the brooks and rivulets, excepting two, which run to the Neckar. The produce of corn, aided by potatoes, is greater than the consumption; but the excess consists more of winter barley than of wheat. Some portions of the land yield excellent flax. The chief articles to be exchanged for foreign articles are wood, corn, flax, yarn, potashes, and some glass and iron goods. The latter are fabricated from some mines of that metal within the territory. Excepting a few Jews, the inhabitants are all Catholics; and in no part of Germany is education in so backward a state. The revenues of the principality amount to about L.30,000 annually, one third of which arises from the patrimonial estates of the sovereign. There are no military except a small body guard. The contingent to be furnished to the German confederation is 370 men. The capital is Sigmaringen, a fortified town, with 1340 inhabitants.

HOHNSTEIN, a small province of the kingdom of Hanover, formerly belonging to the Counts of Stolberg; but being sequestrated, it was, in 1777, transferred to Hanover, which assumed the debts upon it, amounting to about L.30,000 sterling. It lies between the Prussian province of Saxony and the duchy of Brunswick. It extends over 132 square miles, comprehends two towns, twenty-one villages, and 1220 houses, with 7360 inhabitants. A great part of the province consists of mountain and wood. Its agriculture is insignificant, but it contains mines of copper, iron, cobalt, manganese, and coal, though but slightly worked. The chief town is Ilfeld.

HOIST, in sea-language, denotes the perpendicular height of a flag or ensign, as opposed to the fly, which signifies its breadth from the staff to the outer edge.

HOISTING signifies the operation of drawing up any body by the assistance of one or more tackles. Hoisting is never applied to the act of pulling up any body by the help of a single block, except in extending the sails by drawing them upwards along the masts or stays, to which it is invariably applied.

HOKE-DAY, *Hock-Day*, or *Hock-Tuesday*, in our ancient customs, the second Tuesday after Easter week; a solemn festival celebrated for many ages in England, in memory of the great slaughter of the Danes in the time of King Ethelred, when they were almost all destroyed in one day in different parts of the kingdom, and principally by women. This is still observed in some counties; and the women bear the principal part in the observance, stopping all passengers with ropes and chains, and exacting some small matter from them to make merry withal. This day was very remarkable in former times, inasmuch as to be, like Michaelmas, a general term or time of account. We find leases without date reserving so much rent payable *ad duos anni terminos, scilicet, ad le hoke-day, et ad festum sancti Michaelis*. In the account of Magdalen College, Oxford, there is yearly an allowance *pro mulieribus hoc-*

Hohenzollern-Sigmaringen.
Hoke-Day.

Hoke-Day *kantibus* of some manors in Hampshire, where the men hock the women on Mondays, and the women hock the men on Tuesdays. The meaning of this is, that on that day the women in merriment stopped the way with ropes, and pulled passengers to them, desiring something to be laid out for pious uses.

||
Holbein.

Hoke-Day Money, or Hoke-Tuesday Money, a tribute anciently paid to the landlord for giving his tenants and bondsmen leave to celebrate hock-day, or hoke-day, in memory of the expulsion of the Danes.

HOLBEACH, a town of the county of Lincoln, in the hundred of Elloe, in the parish of Holland, 106 miles from London. It is situated in a marshy district, surrounded with excellent fen pasture. It is a place of great antiquity, but not well built. There is a market, which is held on Thursday. The inhabitants amounted in 1801 to 2683, in 1811 to 2962, in 1821 to 3621, and in 1831 to 3890.

HOLBEIN, HANS, a celebrated painter, born at Basil in Switzerland in 1498. He learned the rudiments of his art under his father, who was a painter; but soon showed superior genius. In the town-house of Basil he painted Christ's Passion, and in the fish-market of the same city Death's Dance, and a Dance of Peasants, which were extremely admired, and with which Erasmus was so pleased that he desired the artist to draw his picture, and was ever afterwards his friend. He staid some years longer at Basil, till his necessities, occasioned by his own extravagance and an increasing family, induced him to comply with the persuasions of Erasmus, and repair to England. In his journey he staid some days at Strasburg, where it is said he applied for work to a great painter, who took him in, and ordered him to give a specimen of his skill. Holbein then finished a piece with great care, and painted a fly on the most eminent part of it; after which he privately withdrew in the absence of his master, and pursued his journey, without saying any thing to any body. When the painter returned home, he was astonished at the beauty and elegance of the drawing; and especially at the fly, which he at first took for a real one, and endeavoured to remove with his hand. He now sent all over the city in quest of his journeyman; and after many inquiries, discovered that he had been thus deceived by Holbein. The painter having in a manner begged his way to England, presented a letter of recommendation from Erasmus to Sir Thomas More, and also showed him Erasmus's picture. Sir Thomas, then lord chancellor, received him with all imaginable kindness, and kept him in his house between two and three years, during which time he painted Sir Thomas's own picture, and those of many of his relations and friends. Holbein one day happening to mention a nobleman who had some years before invited him to England, Sir Thomas was very solicitous to know who it was. Holbein said that he had forgotten his title, but remembered his face so well that he believed he could draw his likeness, and this he did so perfectly, that the nobleman is said to have been immediately recognised by it. The chancellor having now adorned his apartments with the productions of this great painter, resolved to introduce him to Henry VIII. For this purpose he invited the king to an entertainment; and, before he arrived, placed all Holbein's pieces in the great hall, where they were disposed in the best order, and in the best light. The king, on his first entrance into this room, was so charmed with the sight, that he asked whether the artist was still alive, and to be had for money? Upon this, Sir Thomas presented Holbein to his majesty, who immediately took him into his service, and brought him into notice among the nobility and gentry, for whom he painted a great number of portraits. But whilst he was thus occupied, there happened an incident which might have proved fatal to him, had he not been protected by the king. On the report of this painter's character, a lord of the first quality came to see

him when he was drawing a figure after the life. Holbein sent to desire his lordship to defer the honour of his visit till another day; but the nobleman taking this as an affront, broke open the door, and pushed rudely up stairs. Holbein hearing a noise, came out of his chamber, met the lord at his door, and falling into a violent passion, pushed him backwards from the top of the stairs to the bottom. But immediately reflecting on what he had done, he escaped from the tumult he had raised, and made the best of his way to the king's presence. The nobleman, much hurt, though probably not so severely as he pretended, was there soon after him; and upon stating his grievance, the king ordered Holbein to ask his pardon. But this only increased the irritation of the nobleman, who declared that he would not be satisfied with less than the painter's life. Upon this the king sternly replied, "My lord, you have not now to do with Holbein, but with me: whatever punishment you may contrive by way of revenge against him, shall certainly be inflicted on yourself. Remember, pray, my lord, that I can whenever I please make seven lords of seven ploughmen, but I cannot make one Holbein of even seven lords." Holbein died of the plague at his lodgings at Whitehall in 1554. "It is amazing," says De Piles, "that a man born in Switzerland, and who had never been in Italy, should have so good a *gusto*, and so fine a genius for painting." We, however, see nothing at all amazing in this. Nature has not, as far as we know, given to Italy an exclusive monopoly of the genius for art, though the treasures contained in the galleries and cabinets of that glorious country are, no doubt, eminently calculated to facilitate its cultivation and advancement; nor is there any reason why a great artist, with a soul alive to the finest perceptions of grace and beauty, should not be born in Switzerland, or in Sweden, as well as in Italy or in Greece. The production of genius is not circumscribed by geographical boundaries; and though several countries may afford better opportunities than others for forming the taste and purifying the perceptions of an artist, none is altogether destitute of the native element, and in some it may be generated in such inherent vigour as, in a great measure, to dispense with the ordinary advantages of instruction. Holbein painted alike in every manner; in fresco, in water-colours, in oil, and in miniature. His genius was sufficiently shown in the historical style, by two celebrated compositions which he painted in the hall of the Steelyard Company. He was also eminent for a rich vein of invention, which he showed in a multitude of designs drawn for engravers, statuaries, jewellers, and other artisans; and he had this singularity, that he painted with his left hand.

HOLD, the interior cavity of a ship, or all that part of her inside which is comprehended between the floor and the lower deck throughout her whole length. This capacious apartment usually contains the ballast, provisions, and stores of a ship of war, and the principal part of the cargo in a merchantman.

HOLDER, WILLIAM, an English divine, was born in Nottinghamshire, educated in Pembroke Hall, Cambridge, and appointed rector of Blechingdon of Oxford in 1642. In 1660 he received the degree of doctor in divinity, and afterwards became canon of Ely, fellow of the Royal Society, canon of St Paul's, sub-dean of the chapel royal, and sub-almoner to his majesty. Dr Holder was an accomplished scholar, and distinguished himself by teaching a young gentleman of rank who was born deaf and dumb, to speak. This gentleman's name was Alexander Popham, son of Colonel Edward Popham, who was for some time an admiral in the service of the Long Parliament. The cure was performed by him at Blechingdon in 1659; but Popham losing what he had been taught by Holder after he returned home to his friends, was sent to Dr Wallis, under

Hold
||
Holder.

Holds-
worth
Holiness.

whom he recovered the use of speech. Holder published a book entitled the *Elements of Speech*, being an inquiry into the natural production of letters, with an appendix concerning persons who are deaf and dumb, 1669, 8vo. In the appendix he relates how soon, and by what methods, he brought Popham to speak. In 1678, he published a Supplement to the *Philosophical Transactions* of July 1670, with some reflections on Dr Wallis's letter there inserted, in 4to. This was written to vindicate the merit of having taught Popham to speak, which Wallis in the letter referred to had claimed to himself; but Dr Wallis soon afterwards published a *Defence of the Royal Society*, and the *Philosophical Transactions*, particularly those of July 1670, in answer to the Cavils of Dr William Holder, 1678, in 4to. Holder was skilled in the theory and practice of music, and wrote a treatise on the *Natural Grounds and Principles of Harmony*, 1694, 8vo. He also wrote a *Discourse concerning Time*, with application of the natural day, lunar month, and solar year, &c. 1694, in 8vo. He died at Amen Corner in London, on the 24th of January 1696, and was buried in St Paul's.

HOLDSWORTH, EDWARD, a polite and elegant scholar, was born about the year 1688, and educated at Winchester school. He was thence elected demy of Magdalen College, Oxford, in July 1705; took the degree of master of arts in April 1711; and then became a college-tutor, and had many pupils. In 1715, when about to be chosen to a fellowship, he resigned his demyship and left the college, because he felt unwilling to take the oath of allegiance to the new government. The remainder of his life was spent in travelling as tutor with young noblemen and gentlemen, in which capacity he visited Rome in 1741 and 1744. He died of a fever at Lord Digby's house at Coleshill in Warwickshire, on the 30th of December 1747. He was the author of the *Muscipula*, a poem, esteemed a masterpiece of its kind, and of which there is a good English translation by Dr John Hoadly, in Dodsley's *Miscellanies* (vol. v.). He was also the author of a dissertation entitled *Pharsalia and Philippi*, or the two Philippi in Virgil's *Georgics* attempted to be explained and reconciled to History, 1741, in 4to; and of *Remarks and Dissertations on Virgil*; besides some other classical observations, published with several notes and additional remarks by Mr Spence, 1768, in 4to. Mr Spence speaks of him in his *Polymetis*, as one who more thoroughly understood Virgil than any person he ever knew.

HOLDSWORTHY, a town of the county of Devon, in the hundred of Black-Torrington, 214 miles from London. It is in a pleasant situation between two branches of the river Tamar, which unite and run to Plymouth. There is a small market, which is held on Saturday. The inhabitants amounted in 1801 to 1045, in 1811 to 1206, in 1821 to 1440, and in 1831 to 1628.

HOLESCHAU, a city of the circle of Hradesch, in the Austrian province of Moravia, on the river Nussawa. It contains 305 houses and 3733 inhabitants, of whom one third are Jews. It has considerable manufactures of woollens, and much internal trade.

HOLINESS, or SANCTITY, a quality which constitutes or denominates a person or thing *holy*, that is, pure, or exempt from sin. The word is also used in respect of persons and things that are sacred, or, in other words, set apart to the service of God, and the uses of religion.

HOLINESS is also a title of quality attributed to the pope, as that of *majesty* is to kings. Even kings, when writing to the pope, address him under the venerable appellation of Your Holiness, or Holy Father; in Latin, *Sanctissime* or *Beatissime Pater*. Anciently the same title was given to all bishops. The Greek emperors also were addressed under the title of Holiness, on account of their being anointed with holy oil at their coronation. Du

Cange adds, that some of the kings of England have had Holiness the same attribute; and that the orientals have frequently refused it to the pope.

Holland.

HOLINSHED, RAPHAEL, one of that humble but useful class of historians called chroniclers, was descended of a family which lived at Bosely in Cheshire; but neither the time nor place of his birth is known, nor indeed any other circumstance of his life. According to Bishop Tanner, he was educated at Cambridge, and became master of arts in the year 1544. But the nature and extent of his education, as well as his profession, are involved in uncertainty. It seems probable, however, that he was steward to Thomas Burdett, of Bomcote in Warwickshire, where he died about the year 1580. He has given his name to a compilation of *Chronicles of English History* from the earliest times, the first edition of which was published at London in 1577, in two volumes folio; and the second edition, in three volumes, was printed about seven years after his death, being brought down to 1586. This work, according to the testimony of Holinshed himself, was begun by the advice of Reginald Wolfe, printer to Queen Elizabeth. Part of it was compiled by himself, but he received considerable assistance from William Harrison, John Hooker, Abraham Fleming, Francis Thynne, and some others. After the death of Holinshed, it was continued by John Stowe. Some parts of the first edition were altered in the second and third, because they gave offence to Queen Elizabeth and the ministry, who laid many restrictions on the liberty of the press; but the castrated sheets were reprinted apart in 1723. The first volume of the *Chronicles* opens with an *Historical Description of the Island of Britain* by William Harrison; and this is followed by the *History of England*, from the time when it was first inhabited until that when it was last conquered, by Holinshed himself. The second volume contains the *Description, Conquest, Inhabitation, and troublesome Estate of Ireland*, by Richard Stanishurst; the conquest of Ireland, translated from the Latin of Giraldus Cambrensis by John Hooker, or Vowell; the *Chronicles of Ireland*, beginning where Giraldus ended, by Holinshed; the *Description of Scotland*, translated from the Latin of Hector Boethius, by Holinshed and Harrison; and the *History of Scotland*, containing the beginning, increase, proceedings, continuance, acts and government of the Scottish nation, from the original thereof unto the year 1571, compiled by Holinshed, and continued from 1571 to 1586 by Francis Boteville and others. The third volume commences with Duke William the Norman, commonly called the Conqueror, "and descends by degrees of yeeres to all the kings and queenes of England." As already mentioned, the time of Holinshed's death, like the date of his birth, is unknown; but from his will, which Hearne has prefixed to his edition of Camden's *Annals*, it would appear that it must have happened between 1578 and 1582.

HOLLAND, DR PHILEMON, a noted translator, was descended of an ancient family in Lancashire, and educated in the university of Cambridge. He was for many years a schoolmaster at Coventry, where he also practised physic. He translated into English, Livy, Pliny's *Natural History*, Plutarch's *Morals*, Suetonius, Ammianus Marcellinus, Xenophon's *Cyropædia*, and Camden's *Britannia*; and into Latin the geographical part of Speed's *Theatre of Great Britain*, and the French *Pharmacopœia* of Brice Bauderon. But the *Britannia*, to which he made many useful additions, was the most valuable of his works. It is surprising that a man of two professions could find time to translate so much; but it appears, from the date of the *Cyropædia*, that he continued to translate till he was eighty years of age. He died on the 9th of February 1636, at the advanced age of eighty-five.

HOLLAND.

Holland. HOLLAND is an European kingdom, formed in part of islands, but chiefly of that part of the Continent where the mouths of the Rhine are divided into several branches before it enters the German Ocean. This district is said to have owed the ancient name of Batavia, by which it was known to the Romans, to one Bato; but at what period he flourished is unknown; and the name is now scarcely used excepting amongst the poets of the district. By accounts collected from the works of Cæsar and Tacitus, we learn that the ancient tribes who inhabited this portion of Europe had been able to maintain their independence in spite of the attempts made to subdue them by the Teutones, the Cimbri, and other nations, who had conquered the rest of what was then called Gaul. The Batavians, says the last of these historians, excelled all the other people on the Rhine in military spirit. When subdued by the Romans they paid their tribute in soldiers; and from them was formed a cavalry, which composed the most efficient part of the Roman armies. They astonished the Dacians by the dexterity and bravery with which, completely armed, they swam their horses across the Danube to attack those people; and for a long period they formed the guard of the Roman emperors. A body of Batavians accompanied Agricola on his expedition into Britain, and were of great assistance in securing his conquests in the island.

Although the Romans at length overcame the Batavians, it was after a strenuous resistance. The last that submitted was the tribe of the Frisons, who inhabited the marshes. Drusus, the Roman commander, constructed a canal between the Rhine and the Zuyder Zee, and thus opened a way into the German Ocean to the Ems and the Weser, by which he was enabled to penetrate into the heart of Germany, and to subdue that country. During four centuries the Batavians formed part of the Roman legions; but amongst these, after the reign of the Emperor Honorius, their name is no longer to be found.

After that period the islands were overrun by the Franks; and the transactions relating to them have been mixed up with those of the adjoining Belgians. The Frieslanders, however, opposed and broke through the armies of the Franks, and made their appearance as a free, and in some measure a victorious people, on the left bank of the Rhine; and there, adhering to their ancient customs, upon which had been engrafted many of the principles introduced by the Romans, they long maintained their independence. These people had suffered the least from the invasion of foreigners, and retained through several centuries distinct traces of their ancient constitution, their national spirit, and their national manners.

In the fifth and sixth centuries the kingdom of the Franks, which had arisen out of the ruins of the Roman power, gradually extended itself, and in the seventh had subdued the last of the Batavian people, the long resisting Frisons. Under Charles Martel the last conquest was achieved, and a way opened by his sword for the introduction of the Christian religion.

When Charlemagne had obtained his extensive dominion, and the feudal system was introduced, and continued under his successors, the powerful vassals of the crown, to whom the lands were granted, by degrees acquired a sort of mitigated sovereignty; but being unable to maintain themselves without the assistance of their under feudatories, they were compelled, in order to secure their fidelity, to grant them advantageous conditions of tenure. The clergy, too, by pious usurpations or pious donations, became a powerful and independent corporate body. Thus,

during the tenth, eleventh, twelfth, and thirteenth centuries, the whole of Belgium and of Batavia was split into several small dominions, the princes of which acknowledged a limited allegiance, some of them to the German empire, and others to the kings of the Franks. During this period Brabant, and afterwards Luxembourg, Limburg, and Gueldres, obtained the name of dukedoms; Flanders, Holland, Zeeland, Hennegau, Artois, Namur, and Zutphen, were ranked as Graffschalft, or countships. Utrecht was a bishopric, the prelate of which exercised civil authority also in Overysse and Groningen. Amongst all these chiefs the Count of Flanders was the most powerful; and as, in 1383, that countship fell to the then more powerful house of Burgundy, the prince of that family, partly by intermarriages, partly by force, and partly by voluntary or purchased submission, obtained supreme authority over the whole of what became the seventeen provinces of the Netherlands.

This appears to have been the most flourishing period of these provinces. Agriculture was carried on with spirit, skill, and abundant results. Manufactures of linen, and especially of woollen goods, gave occupation to an increasing population; and foreign commerce was extensive and profitable. The commodities of India brought to the Italian cities were transmitted to Antwerp, Bruges, and some other places, where extensive depôts were established for foreign and domestic goods, and where, at the periodical fairs, the merchants of the northern kingdoms of Europe resorted, and transacted their commercial affairs.

The government of the Dukes of Burgundy was tempered by the privileges enjoyed by the cities, and by the nobility who possessed the land; and, though contests frequently arose between the sovereign and the states, they rarely came to open hostilities. When disturbances occurred, they were not of such duration, or so extensive, as to interrupt in any great degree the rapid growth of general wealth and progressive improvement.

Charles the Bold, the last of the Dukes of Burgundy, lost his life in a battle with the cantons of Switzerland in 1477. His eldest daughter Maria married Maximilian, duke of Austria, and received the Netherlands as her portion; and her grandson, born at Ghent, afterwards Charles V., emperor of Germany, thus became sovereign of those countries and of the kingdom of Spain from the moment of his birth. Before the marriage of Maria, and also under Maximilian, when he had become emperor and guardian of his son, attempts were made to lessen the influence of the states. But these were powerfully resisted by some of the cities, and especially by Bruges, in 1487, and by Sluys about the same time. Bruges was sufficiently strong to resist the encroachments; but Maximilian, in despite of its privileges, blocked up the port of Sluys for ten years, which caused the foreign ships that before crowded to that place to repair to Antwerp and Amsterdam; and these cities from that period became the two principal seats of foreign commerce.

The Netherlands, at the end of the fifteenth century, became the great school for the fine arts. These had been introduced from Italy; and the artists of the Low Countries were soon successful rivals of their masters of Florence, Bologna, and Venice, in painting, in statuary, in architecture, and in engraving. The art of printing, if not invented, was first made known at Haerlem, and was soon practised in other cities of the Netherland provinces.

At the accession of Charles V. the situation of the Netherlands became widely changed. Instead of a paternal government, the chief of which in a great measure depend-

Holland. ed on the prosperity of these provinces, they were converted into a dependent, and, though rich and populous, an insignificant part of a large empire, to the promotion of whose greatness, whether for good or for evil to themselves, they must in future be almost wholly subservient.

Between the Flemings and the Spaniards an excessive distaste was mutually felt, which soon attained to the most inveterate hatred. This originated in the difference of genius, of manners, customs, and mode of government, and was quickly increased by the regret natural to a powerful people, such as those of the Netherlands deemed themselves, at being incorporated, and thereby almost swallowed up, by another nation. Steps were early taken by Charles, under the pretence of introducing unity in his territories, that had a tendency to undermine the privileges which the Netherland states had zealously defended and long maintained. Before his accession a legal tribunal had been established at Mechlin, to which appeals might be made from all the legal tribunals of the confederate states; and as none but natives were judges, and their decisions were guided by the ancient laws, it was looked up to with confidence, and considered as a security to their constitutions. This tribunal was, however, nullified by being placed under an imperial court, established at Brussels, several of the members of which were foreigners, and all of whom were dependent on the royal favour alone. This imperial court was naturally viewed with a jealous eye, and was ill adapted for the protection of those rights to which the people were attached.

The growing expenses of the hostile operations of Charles in other parts of his extended dominions, made his demands on his Netherland subjects much heavier. In spite of their ancient right of levying taxes, he imposed some that were new, and increased others. The history of this reign contains constant repetitions of subsidies required, which were at first rejected or deferred, but at length yielded, though with reluctance and discontent.

Another subject of murmuring was the introduction of foreign troops, that is, forces belonging to the other dominions of the emperor, as well as recruiting his armies in the Netherlands without the consent of the states; circumstances which, besides being contrary to the constitution, involved them in wars to which they were indifferent or repugnant, and which were injurious to their interest as a commercial people.

Charles felt that the commerce of his subjects could alone enable him to extract from them those pecuniary supplies which his general government needed; and so far he protected their manufactures and mercantile affairs, and in some cases even recalled edicts, at the requisition of his Flemish subjects, which he would have without hesitation enforced at Madrid. The most influential of all the causes which arose in the reign of Charles V. was the religious reformation which had commenced in Germany, had spread in France, and from both these countries had been introduced into the Netherlands, chiefly in the trading cities, and in them had gained numerous adherents. The full effect of this, and of the other causes which have been here noticed, did not appear until the abdication of the emperor had elevated his son Philip II. to the extensive dominions of his father.

The religious excitement gave some uneasiness to Charles, and measures were feebly applied to check the progress of the new opinions, to which, when not actuated by political views, he at one time seemed not to be strenuously inimical. Had the emperor been disposed to severity towards the professors of the Protestant tenets, any measure of that nature would have affected the interests of commerce, and have tended to diminish the revenues he drew from that source. The foreign merchants who had establishments, or frequented the fairs, in the Netherlands, brought with them

Holland. from Germany, England, France, and other countries, the doctrines and the writings of the Protestants. These were diffused amongst the natives, and made a great impression; and any attempts to destroy their intercourse, or to punish them for their opinions, would have driven commerce, as it did a few years later under Philip II., to the other markets of Europe, where greater religious freedom was enjoyed.

Towards the close of his reign, Charles issued indeed some most severe laws against those who professed the new religion. These were in some cases applied with unfeeling cruelty, though they tended but little to diminish the progress of the dissident principles. He had resolved, after the successful issue of his wars in Germany, to reduce his Netherland subjects to uniform obedience to the Roman Catholic religion, and for that purpose he designed to have introduced the Inquisition. The fear alone of that dreaded tribunal in Antwerp suspended immediately all commerce, and the most eminent foreigners made instant preparations to remove. There were neither buyers nor sellers to be seen, the value of the buildings was destroyed, and all the operative labourers were discharged. Money totally disappeared, and no taxes could be collected. At the earnest recommendation of the Duchess of Parma, as vice-regent, this edict was suspended. The common tribunals were directed to practise no molestation on the foreign merchants; and, instead of the Inquisition, a milder court, at least in name, was framed, and called the ecclesiastical tribunal. In the other provinces, however, much severity was beginning to be practised, not long before the abdication of Charles; but, severe as these were, the remembrance of them was speedily obliterated by the more savage cruelties practised under the reign of his son.

The reign of Charles was, upon the whole, beneficial to the United Netherland Provinces, and he left that division of his dominions in a most flourishing condition; so that for its extent it was by far the most considerable state in Europe. Their taxes were by no means heavy, though their trade was most extensive; and the mechanical genius and persevering industry of the inhabitants had rendered the Low Countries the workshop of Europe. When the emperor, at his solemn abdication, delivered over these provinces to the rule of his son, they are reported to have contained three hundred and fifty cities, and six thousand three hundred towns and large villages, besides numerous hamlets, farm-houses, and castles. These comprehended the four dukedoms of Brabant, Limburg, Luxembourg, and Guelderland; the seven countships of Artois, Hennegau, Flanders, Namur, Zutphen, Holland, and Zealand; the margravate of Antwerp; and the baronies of Friesland, Mechlin, Utrecht, Overysse, and Groningen. Statistical researches were not much practised at that period, and no accurate views can be obtained of the extent of the population; but there is good reason to conclude, that, though at present the Netherlands are the most densely peopled of any part of Europe, the numbers then were more than equal to what they are now. The seven provinces which afterwards formed the republic were probably less populous; but the other divisions, where manufactures were more generally carried on, were, from all accounts, proportionally more crowded. Philip II. ascended the throne on the abdication of his father in October 1555. He had been educated in Spain, and had imbibed the retired and stately manners of that country. He spoke no other language but Spanish, and, except the short time he had passed in England after his marriage with Queen Mary, he had scarcely ever left the peninsula. He was most zealously attached to the Roman Catholic religion, and not less so to the unrestricted exercise of arbitrary power. He was distrustful of those who administered public affairs, was nearly invisible to his subjects, and the few who had access to his presence were commonly disgusted both with his manners and with

Holland. the punctilious formalities with which their introduction was attended. He was deemed insensible to human sufferings, and was equivocating, if not insincere, in the replies he made to the petitions of his subjects.

He remained in the Netherlands from his accession in 1555 till August 1559, when he embarked for Spain, and never afterwards returned. The measures he introduced during his stay, his repulsive manners, and the humours he displayed at his departure, all tended to strengthen that aversion, mingled with suspicion, which had begun to manifest itself during the reign of his imperial predecessor.

The most obnoxious measures to the people were, first, a design to abolish several of the monastic establishments, in order that their estates might be converted into revenues for new bishoprics, the incumbents of which were to be the instruments of introducing the Inquisition into the provinces. That institution was held in such abhorrence, that it encountered every obstruction which could be opposed to it, both by the Catholics and the Protestants. It had met also, at the court of Rome, some obstacles which caused delay, so that the arrangement was not completed when the king departed for Spain. The second cause of complaint was the retention of foreign forces within the states. When the king came to the throne, a war was carried on with France; but the French having been signally defeated at the battle of St Quentin in 1557, a peace was, after long negotiations, completed at Chateau-Cambresis. The withdrawing of the troops, consisting both of the Spanish infantry and of some German auxiliaries, was eagerly looked for by all the inhabitants. The latter were disbanded and sent home, but the former were retained, and proved dreadfully oppressive to the country. Vander Vynckt, the faithful historian of Flanders, says, "the Spaniards were so elevated with their late successes against the French, that they thought the ransom or the pillage of the whole of the Netherlands would be an insufficient recompense for the actions they had performed. They lived at free quarters on the country, and trampled upon the people without pity." In fact, receiving little or no pay, or that pay being much in arrears, they were of necessity instigated to all kinds of disorders, and led to practise the most abominable oppressions. The remonstrances of the states were coldly received, and though assurances were given that the grievance should be removed, and the period for it was fixed, it was delayed from time to time, and ultimately consented to in appearance only, as they remained on the frontiers, ready to re-enter when the ulterior measures which were in preparation should require their assistance. As one means of delaying the departure of these troops, two legions were proposed to be placed under the command of the Prince of Orange and Count Egmont, two of the most patriotic and popular of the nobility. But their integrity resisted the temptation; they declined the command, and this rendered the continuance of the troops the more obnoxious.

A third cause of complaint was, a violation of the ancient constitution of the states, by introducing into the higher executive and judicial offices persons of foreign birth. When Philip left the Netherlands, the government was conferred on the Duchess of Parma, a natural daughter of the Emperor Charles V. She was to be assisted by a council of state, composed of the Prince of Orange, the Counts Egmont and Horn, Granvelt bishop of Arras, Count Barlaimont, and Vigilius de Quichem. But by secret orders, but which soon transpired, a committee of this council, consisting of the three last named, was empowered in most cases to communicate alone with the duchess, and in all cases to decide on the advice which was to be given to her. Thus the Prince of Orange and the two counts were mere ciphers, and rarely attended the council. Barlaimont was a mere creature of Granvelt, who attended only to the finances, of which he was chief, and was com-

monly absent when other affairs were under consideration; Holland. Vigilius was a man of profound scholastic learning, very politic, and very yielding; so that, in fact, the whole power was conceded to Granvelt. He was a native of France, and had distinguished himself by his learning, but more by his subservience to the rigour and the caprices of Philip. By these means, from the low condition of a parish priest, he was raised to the episcopal rank, and finally to the dignity of a cardinal. His being a foreigner was the pretext, but his arbitrary disposition and intolerant rigour the causes, of general aversion; and the firmest and most pointed representations of the assemblies of the several states were solely but unavailing directed towards him. He alone conducted all affairs, and to him the secret orders of the king were conveyed.

The three members of the council who had been named on account of the estimation in which they were held among the natives of the Netherlands, though they were utterly inefficient as members of the board, should not be passed over without short notices of their rank and character, on account of the vast interest which has been excited by the events they directed, and the fates they experienced.

William of Nassau, prince of Orange, was one of the greatest men of his own or any other age. He had in his youth been brought up in Germany, his native country, amongst Protestants, whose creed his father had adopted. Being of an illustrious house, he was early introduced to the Emperor Charles, whose favour and confidence he obtained, and he was employed by him in some most honourable commissions and embassies. He came to the possession of the family inheritance on the death of an uncle and a cousin, consisting of extensive estates in Burgundy and the Netherlands, and thus was by far the richest of all the nobles of the country. By his wealth he was enabled to live magnificently when ambassador in France and in England, and afterwards at home when governor of the provinces of Holland and Zealand. He was as highly estimated in foreign countries as in the Netherlands, and had formed numerous alliances and friendships in England and France, and others still more considerable in Germany. He was a man of penetration, courage, and resolution, with enlarged and accurate political views. His measures were maturely considered, but when once determined upon, nothing could shake them. In the greatest adversity he was firm and tranquil, and he possessed in his mind inexhaustible resources. He was remarkable for his taciturnity, from which circumstance he was sometimes distinguished by the name of William the Silent. An Italian proverb has appropriately described him, *Tacendo parla, parlando incanta*.

Lamoral count Egmont was also a nobleman of the first rank, of a family originating in Holland, some members of which had in former times been the sovereign Dukes of Guelderland. His mother, the heiress of the house of Luxembourg-Fiennes, had brought to the family of Egmont estates in Flanders of vast extent and riches. He was adored by the inhabitants of Flanders and Artois, of which provinces he was the governor, and was generally considered as the fittest person to have filled the dignity held by the Duchess of Parma. He was generous, frank, disinterested, and open hearted. He was besides a good general, possessing intrepid courage, and had distinguished himself in the war with France. He was less adroit than the Prince of Orange, and had less of foresight, but he was as eminent in the field as the other was in the cabinet. These men were at one time rivals for power, but a common interest closely united them. Philip de Montmorenci, count Horn, was an admiral, and in his command of the naval forces had displayed the most intrepid courage, and had rendered great service to the Spanish government. He had been

Holland. governor of the provinces of Zutphen and Gueldres, and by the management of Granvelt had been suspended and sent into Spain, where he is said to have acquired a thorough knowledge of the operations intended against the liberties of his country, and communicated them to the Prince of Orange. He was reported also to have then had some intercourse with Don Carlos, the heir to the throne of Spain, who himself was supposed to feel differently on the affairs of the Netherlands from his father King Philip.

With these three leaders were connected others of rank nearly equal, the whole of the inferior nobility, and a very large majority of the burghers, merchants, and manufacturers of the cities and towns; and in particular almost the whole of those people who were connected with maritime transactions, either as owners or navigators of vessels.

We return now to the causes of complaint which were made in the Netherlands. The fourth of them was, the omitting to call together the general assembly of the states. Though under the reign of the Emperor Charles the power of that body had been much curtailed, they were yet the organ of the opinions and feelings of the more respectable part of the nation. Their views and complaints were freely communicated to the government, and exercised influence on its decisions. One of the last and most decisive instructions given by Philip to the Duchess of Parma, before his departure for Spain, forbade the assembling of this body.

The chief points upon which the subjects felt aggrieved are only here noticed, though there were many others, some of a minor and some of a local nature, all which, combined with the general disgust felt towards Spain and the Spanish monarch, tended to shake the authority of the king, by indisposing the civil tribunals from following up with zeal the ordonnances which from time to time were issued by the sovereign.

These complaints had at a very early period excited secret associations amongst the nobility and gentry which were in opposition to the extension of the severe penal laws. One of these associations was formed as early as 1556, by Martinier baron of St Aldegonde in Breda, a confidential friend of the Prince of Orange. He, with ten or twelve others of equal rank, drew up a declaration, then known by the name of the *Compromise*. It contained execrations against the Inquisition, which it painted in the most horrible colours. It accused foreigners of having seduced the king to refuse the abolition of his rigid ordonnances, that they might be enabled to gratify their ambition and their avarice; and it concluded with declaring, that they were united to assist the oppressed, to resist violence, and, above all things, never to submit to the establishment of the Inquisition. When this compromise had been signed at Breda, numerous copies of it were made and circulated throughout all the provinces, from Artois to Friesland. It was signed with avidity by all classes, from the highest nobility to the lowest artisans. This association at length became so extensive and bold as to determine on an application to the regent, for which purpose the leaders requested an audience, that they might lay their complaints before her. This request, after much hesitation and with some symptoms of alarm on the part of the government, was at length granted. The nobles assembled at Brussels, attended, according to the custom of the age, by their numerous followers, and, marching to the palace in a long train in regular order, were admitted to an audience. The address was read by Brederode count of Utrecht. It contained strong professions of obedience and loyalty, and asserted that the associates were innocent of the charge of which they had been calumniated, of having entered into engagements with foreign powers. In conclusion, a convocation of the states-general was re-

quested, and in the mean time a provisional suspension of all inquisitorial measures and proclamations, until a reply could be received from the king, who was then in Spain. An equivocal reply was given, the substance of which was merely that more temperate measures would be pursued till the orders of the king were received.

This assembling of the nobles gave to the associates a name which was assumed and long continued as a mark of distinction. During the audience at the palace, the duchess appeared somewhat alarmed at the great number of persons which composed the deputation. Count Barlaimont, one of her suite, in order to calm her disquietude, whispered, but sufficiently loud to be heard by those who were nearest, that they were nothing more than *un ramas de gueux*, a crowd of beggars. On this being reported at a convivial meeting of the nobles, one of them, as a toast, gave *vivent les gueux*, which was received with acclamation, and the name afterwards adopted; and their clothing and ornaments were so worn as to exhibit emblems like those in use amongst conventual mendicants and other beggars, one of the most distinguishing of which was a sack thrown over the shoulders, on which was frequently painted the motto of the association, *Fidèle au roi jusqu'à la besace*.

The exhibition of strength on the part of the associates led to a series of negotiations between the vice-regent and the party, which at length was terminated on the 23d of August 1566, by the duchess provisionally, till orders could be received from Spain, agreeing to suspend the introduction of the Inquisition, and in the mean time to submit her other measures to the revision of the states-general.

Even this kind of truce was only conceded in consequence of some tumultuous and outrageous assemblages, partly excited by the Protestant preachers, but of which they soon ceased to have any power of direction or control. The assemblies first collected by field preachers were composed of those who had imbibed the Protestant opinions, and were held on the frontiers of Liège, about St Trond. They were soon joined, out of curiosity, by numbers anxious to hear the new doctrines, but speedily afterwards by all the wandering tribes of outlaws, vagabonds, and plunderers; and at length they became so numerous that no resistance could be made to them in the open country, or even in the cities which were not fortified and well garrisoned. The Catholic writers of the period represent these assemblages as being composed principally of the sectarians of Germany and the Calvinists of France, joined to the Anabaptists of Leyden and other parts of Holland. It seems evident, however, that these were very early outnumbered by others whose chief objects were plunder and destruction. Their first operations were to attack and rob the monasteries in the open country; they then seized on the churches, and destroyed all the images and other appendages of the Catholic worship, carrying away with them whatever was portable and valuable. The peaceable inhabitants appeared everywhere panic-struck, and the desolating power thus let loose was opposed by no obstacles; so that at length all the cities except Brussels were more or less subject to the depredators. Ypres, Tournay, Valenciennes, and Oudenarde suffered the most. At Antwerp the Prince of Orange suspended the destruction as long as he remained there, but after his removal the insurgents gained the superiority, and were enabled to destroy the images and ornaments of the cathedral, as well as those of the other churches and monasteries, in that city. This devastation was like a hurricane, and though the storm passed over in a short space of time, its effects were frightful, and its destructive operations extensive.

The duchess, though about to leave Brussels, and seek safety in Mons, was persuaded by her council to remain in the capital, where intimidations on one side, and pro-

Holland. posals to treat with the insurgents on the other, were urged with vehemence. To the latter she at length yielded, and authorized the Prince of Orange, with the Counts Egmont and Horn, to treat with the chiefs of the insurgents, who still continued in St Trond. This measure was so far successful for the time, that, after the provisional agreement already noticed, a treaty was concluded with the leaders at St Trond, and signed on the 25th of August. It was agreed that the preachers might continue their religious practices in the places where they actually did exercise them, that the people might attend them, but unarmed, and cause no trouble to the Catholics. The nobles were to renounce the confederation, and all were to lay down their arms, and assist in restoring and re-establishing the estates, the churches, the monasteries, and the hospitals that had been plundered, and indemnify those who had suffered.

A temporary lull was thus procured, though frequently interrupted by local explosions. All were waiting with impatience for intelligence from Madrid, whither couriers were immediately forwarded after the pacification, with despatches from the duchess to King Philip. The letters to Spain were expressed in the most melancholy strain. The duchess confessed that she had granted to the insurgents terms that were degrading to herself, and which she could not relate without shame and grief. She affirmed that she had long resisted, but, weakened by fever and sleepless nights, had at length yielded; that with anguish of mind and bodily pain, and the fear of greater evils, she had granted pardon to the rebels, and had acceded to their demands, but that she had done nothing in the name of the king, but only in her own; and that he might disavow and undo what she had done, as his majesty was no party to the acts. The despatch concluded with an earnest solicitation that his majesty would not delay his journey to the Low Countries till the spring, but come immediately to Brussels.

Philip received the despatches at Segovia, where he was confined by sickness; and though he read and remarked upon them, no answer was returned till he was enabled to remove to Madrid and assemble his council. In that council it was seen that the vice-regent had in no way committed his majesty, and the answers were dictated under that assumption. Two despatches were drawn, one of them ostensible and the other secret. They are to be found at length in Strada, and the substance of them may be thus abridged. The first or public letter announced the birth of an infant, and that the king had removed to Madrid to make the necessary preparations for his journey to Flanders; that a convocation of the states would be no remedy for the existing evils, but an injury to the honour and the conscience of the king; and that the best measure, in case of necessity, would be to repel force by force, in which circumstances she might securely count on the aid of the well disposed people. The secret despatch was more laconic. It enjoined attention to former orders, and to the public letter, on what related to the convocation of the states-general; and if any force was exercised towards the government, to trust to God and his providence, but to do nothing that should appear, either directly or indirectly, to have proceeded from the opinion of the king.

It was the policy of the court of Spain at this period to keep every thing in the Netherlands in a state of total suspense. For this purpose rumours were spread of the king's intended journey. The time was fixed, the preparations were made, the route was determined, and the attendants were named. It was however only a kind of grimace, though, to give it more the appearance of reality, application was made to the king of France for permission to pass, and also the Duke of Savoy was consulted respecting the fittest passage over the Alps, in case the king should proceed to Italy by sea. These measures satisfied almost the whole

Holland. of the inhabitants that their sovereign would speedily appear amongst them. The Prince of Orange alone was not deceived. He had emissaries of talent in Madrid, in Rome, and in Vienna, and indeed wherever important intelligence could be obtained. In 1565 Catherine de' Medicis, with her son Charles IX., had a meeting at Bayonne, to which King Philip and his queen, a daughter of Medicis, were to have repaired. The king, however, did not join them, but the queen did. It was represented as a mere family party, at which the ambassadors of other states were not expected to attend. At the meeting the females concocted a treaty between the two kings, which was to be kept secret from all but themselves. It engaged to extirpate all heresy and heretics, not only from their own dominions, but from all the other parts of Europe in which Protestantism had already been embraced. The secret was well kept, and the meeting was attributed to some projected family marriages, which Philip represented to his ministers as a matter which would be best arranged by the females. Walsingham, the ambassador at Paris of Queen Elizabeth, within little more than a year gained the particulars of the treaty, and communicated them to his court, and thence the knowledge of it was conveyed to the Prince of Orange, who maintained the most profound secrecy till the most useful moment for its being made known had arrived.

It was generally believed that the prince had the most complete knowledge of what passed in the cabinet of King Philip, though it is now unknown if, as some suspected, he had the intelligence from his son Don Carlos, or, as others imagined, from one of his secretaries. It is said, that from his perfect knowledge of the transactions and opinions of the French court, and of what had passed at Bayonne, he had predicted the massacre of Saint Bartholomew, and had informed the Admiral de Coligny of the plot, putting him on his guard against the caresses and the treachery of the court, but which, unfortunately for the illustrious victim, did not save him from the miserable fate which he at length suffered. The Prince of Orange was possessed of large estates in Germany, and, by blood as well as by marriage, was closely connected with many of the smaller sovereigns of that country, who had embraced and introduced into their dominions the doctrine and the worship of the Protestants. Even the emperor, though a firm adherent of the Roman Catholic church, was in some measure influenced by him. He was induced to write to King Philip, expressing his good will, but pointed out to him that he was engaged in a war with the Turks, that a great part of Germany interested itself in the fate of the Netherlands, and that those who had adopted the confession of Augsburg would never allow the inhabitants of these provinces to be oppressed. He therefore recommended a negotiation with Orange, Egmont, and Horn, and offered his mediation to accommodate the differences. The court of Spain rejected this interference between the king and his Flemish subjects; but the knowledge of this correspondence served to strengthen the purpose of the Prince of Orange, who soon became acquainted with it, to adopt the precautionary measures which his situation required.

The Prince of Orange having learned, by his emissaries at the court of Madrid, that the preparations for the king's journey to the Netherlands were merely adopted to quiet and mislead the public, and that, on the contrary, it had been determined to pursue the most rigid measures, and intrust them to the Duke of Alba, determined on his course of action. He immediately resigned all the offices he held in the Netherlands, and withdrew himself and his family to his territories in the duchy of Nassau in Germany.

The Duke of Alba was reputed in that age to be cruel, crafty, proud, and avaricious; and his name was held in abhorrence throughout the Netherlands. Although it was resolved that he should have the sole power, yet the pur-

Holland. pose was concealed even from the regent herself. Philip continued to assure her that he was resolved to come as soon as possible, and that the Duke of Alba only preceded him, to smooth the way, and so arrange affairs that he might on his arrival the more easily restore tranquillity; that in the mean time the duke would command the army, and attend to the fortifications, and the security of the country, but still in subordination to the authority of her highness. The knowledge of this appointment could not be long kept secret, and its disclosure produced universal consternation. The great nobles, such as the Prince of Orange, the Counts Calembourg, de Bergh, Brederode, and others, had early sold parts of their estates, and raised money by mortgages on the other portions of them. All that could, prepared for their removal. The inferior nobility, the rich merchants of Antwerp, the wealthy burghers of all the cities, resolved to expatriate themselves and their families. Soon after the mission of Alba was publicly made known, the duchess wrote to the king to say, that already more than one hundred thousand persons had abandoned their domicils and their country. The Low Countries were at that period at the height of prosperity. The cities were opulent and contiguous, the towns, villages, and hamlets, resembled the cities of other countries, and almost touched each other. It was most densely peopled, and so cultivated that no waste land was to be seen. The commerce was active, and the inhabitants, from industry, were easy in their circumstances, well fed and well clothed. They were the objects of envy to strangers, and viewed with peculiar jealousy by the Spaniards, who saw their condition, and compared it with that of their own country.

The emigrations caused by the first intelligence of the approach of Alba alarmed the duchess, who issued edicts designed to tranquillise the people, and these had some effect; but they were disavowed by orders of the king, and some who had been induced to return were subsequently the victims of their confidence. Afterwards, when the severities of Alba began to be exercised, the emigrations were increased; and though orders were issued to prevent it, and intrusted to the Spanish troops to execute, they came too late. A great number of families had expatriated themselves, and taken with them whatever of their property they could save. Those who were left were chiefly artisans, who could find no employment when their masters had forsaken them, and were thus compelled to seek the means of subsistence elsewhere. A great part of such as were capable of bearing arms joined the Prince of Orange, or enlisted in the armies which the princes of Germany created. Others of them sought an asylum in the imperial cities, and there exercised their trades. Some threw themselves into the Walloon country and into Picardy, for the interior of France was then in greater commotion than even Flanders itself.

The greatest removals however were to England, where, by the orders of Elizabeth, all the ports were open to them, where their property was protected, and where they introduced new fabrics of various kinds, and established those manufactures which have become in process of time the foundation of the commerce and the wealth of our country.

The Duke of Alba, in 1567, embarked with his army at Barcelona, and landed at Genoa. After some stay at Milan, he passed the Alps by Mount Cenis, and proceeded to Franche Comté by the frontiers of Burgundy and Lorraine, and arrived in the beginning of August at Luxembourg, whence he proceeded to Brussels, and entered that city on the 22d of the same month. At his first appearance his conduct convinced the duchess that he was come to exercise supreme power, and in a short time she withdrew from the government. He conducted himself in a most caressing manner to Horn and Egmont, consulted

Holland. them on military subjects, and especially in constructing fortresses at Valenciennes, Antwerp, and Groningen; but suddenly at the council arrested them, consigned them to separate prisons, seized all their papers, and obtained possession of their money, jewels, and other valuable effects.

When the duchess had quitted Flanders, Alba proceeded with his more violent measures. In January 1568 he erected a judicial tribunal, well known in the annals of the country by the Flemish name of *Bloet-Raet*, or sanguinary council. Alba was himself president, and Vargas, a Spaniard, vice-president. The other members were neither of the privy council nor of the council of Brabant, but, with the exception of two persons who never took their seats, consisted of individuals on whose concurrence Alba could securely rely.

This tribunal commenced by citing before it all the nobles and the citizens, whether absent or present, whether living or dead, who had signed the compromise, such as the Prince of Orange, the Counts of Nassau his brothers, the Counts Hooghstraete, Calembourg, and Brederode, and even the Marquis of Berghes, who was deceased. The Prince of Orange, who had decided on his part, replied in terms of defiance. He asserted that he was a member of the German empire, and as such answerable before none other than the emperor himself; and that, as one of the Spanish order of the golden fleece, he could only be judged by the king when holding a chapter of that order. The others made replies rejecting the authority of the new tribunal, and avowed their junction with the forces which the Prince of Orange was collecting.

The citations were numerous, but the most detailed account is that preserved at Ghent. One hundred and fifty persons, consisting of nobles, patricians, and burghers, were summoned on fixed days to appear at Brussels. Of that number only eighteen presented themselves, the others having emigrated or being concealed. These, conscious of their innocence, were allowed to defend themselves before the tribunal, and were then bound two and two together, and thus marched to prison. The process was not long deferred; they were condemned to death, and perished on the scaffold, some by the sword, others by the halter, according to their respective ranks. Numerous other prosecutions, which terminated in death and confiscations, were carried on towards persons in Ghent; and if the number executed in the whole of the country were in the same proportion to those in that city, it may be true which Alba is said to have boasted on his return to Spain, that more than eight thousand persons had perished on the scaffold during his government of the Netherlands.

The executions of the Counts Egmont and Horn were deferred till June, when, by a process not to be justified by any law, they were condemned to suffer death. They were brought from their confinement in the prison of Ghent, surrounded by two thousand Spanish troops, and decapitated in the Place de Sablons, at Brussels, on the 5th of June 1568. The illegality of these executions was loudly complained of, and produced a great effect over the whole of Europe. Even the emperor and the other Catholic princes loudly condemned the proceeding, whilst many of the Protestant princes were induced by it to lend their aid to the confederation which the Prince of Orange was forming to avenge his friends, and to rescue the country from the miseries it endured.

The army which Alba brought with him from Spain, with some additions on the way, amounted to 20,000 men, one half of which consisted of Spanish infantry, who were in that day considered as the best troops in Europe. They were well disciplined and well commanded, but were much disposed to mutiny, especially when, as was often the case, their pay was in arrear; and this disposition was afterwards often displayed in the most critical circumstances, to the

Holland. great injury of the service in which they were employed. The desolation of the provinces, and the horrid cruelties which had been perpetrated, at length gave birth to that ruinous and obstinate civil war, which continued so long that none of those who commenced it lived to see its termination.

When the Prince of Orange retired into Germany, he had wished to have collected a force which might have harassed the army of Alba during the march from Italy to the Netherlands; but the princes of Germany were not so alarmed at the prospect of the danger which threatened them, as to assist him to such an extent as he deemed necessary for his purpose, and Alba with his army entered without molestation. The prince had time in his retirement to form his plans deliberately, to calculate on future probabilities, and to be ready to act when the moment for action should arrive. The first cruelties of Alba made a deep impression on all the Protestant princes of Germany, and this impression Orange was skilful enough to turn to his advantage. By the deaths of Horn and Egmont such indignation and resolution were excited in them, that they offered to Orange their wishes, their councils, their troops, and, what is almost incredible, their treasures. Amongst the most prominent of these was the Prince Palatine, with whom the Prince of Orange held a secret meeting at Strasburg, at which some of the leaders of the Huguenots in France were present. Even the Catholic princes were so inflamed at the treatment of Horn and Egmont, that, if they did not assist, they did nothing to impede Orange in his negotiations. The assistance thus obtained, with the aid of a pecuniary nature from Queen Elizabeth of England, and recruits from the Protestants of France, enabled Orange to take the field.

The prince was straitened for money; and his army, though numerous, was badly composed. The Germans and the French were new levies, hastily raised, eager for booty, and in general ill disciplined. Though they were not subject to his sole command, he could not safely disgust them, nor could he allow them to plunder. He knew, too, that at the end of the campaign these succours would quit him, because he was not in a situation to maintain so numerous a body. The greater part of the fugitives from Flanders were destitute, and the prince foresaw that these must soon become a charge which he would be unable to bear.

With forces of such motley composition, Orange determined on a bold and sudden attempt to enter the country on one side or the other, and to sound the tocsin over the whole of the Netherlands. On this plan he formed four bodies, to enter the country at different points. The first of them was to penetrate on the side of Liège, and to enter Gueldres. It was commanded by Count Hooghstraete, the only nobleman of distinguished rank who had been so fortunate as to escape from the fangs of the Duke of Alba. The second corps consisted of the French Huguenots, commanded by De Cœqueville, and they entered into Artois. Neither of these corps were strong, nor do they appear during the whole campaign to have effected any other object than, by skirmishing, to have distracted the attention of the enemy, and thus kept him from strengthening the more important points. The third corps was better composed and more numerous. It was commanded by Prince Louis of Nassau, brother of the Prince of Orange. It commenced the war by entering Friesland, where he was opposed by the king's army under the Count Arenburg, whose force was augmented by Spanish infantry and cavalry. When in presence of the enemy, he was forced to give battle, by the taunts of the Spaniards, who accused him, from his being a Fleming, of favouring the party of Orange. He led his troops to the combat, and fell in the attack. His army was completely defeated and dispersed,

with the loss of its cannon, baggage, and a large sum of money which was destined to pay his troops, as well as others then in Groningen. The Frisian peasantry put to death the fugitive Spaniards; but the Germans and Flemings, who were mixed with them, were either liberated or joined the victorious troops.

The Duke of Alba was at Brussels when this disastrous event happened; and instantly, after venting his rage by numerous judicial assassinations, he repaired, with what troops he could collect, to Groningen, where he was joined by the garrison of that city. The troops of Prince Louis amounted to 12,000 or 14,000 men, and that of Alba was nearly of equal number; but the army of the latter was well trained and well disciplined, whereas that of the former was a mass of strangers, difficult to restrain, with little experience and less discipline, disposed to mutiny for want of their pay, and ready to desert their colours after any reverse. Prince Louis found it necessary to retreat from Winschotten, where he had gained his victory, and remove into the German province of East Friesland. He took up a position defended on one side by the river Ems, and on the other by that bay of the Zuyder Zee called the Dollart, and having at his back the city of Embden. He threw up intrenchments mounted with cannon in his front, and with better disciplined troops might have maintained himself till his brother the prince, who was advancing with a numerous force, could arrive to his relief. Alba pressed eagerly forward, and, at his approach, the troops of Nassau broke out into mutiny; and though it was partially quelled, a body of auxiliary troops who had joined it from Oldenburg, instead of waiting the attack within the lines, rushed out without orders, and threw themselves upon the Spaniards, by whom they were cut to pieces, and the opening thus made was entered by the enemy. The route became complete, and the Spaniards were amply revenged for the late disaster at Winschotten. Many of Nassau's troops were killed, more were drowned in the Ems, the cannon, colours, and baggage were captured, and the prince with a few of his followers threw themselves into the city of Embden, whence, from their knowledge of the country, they succeeded in making good their retreat.

Whilst these transactions were passing on the eastern side, the Prince of Orange had been collecting his fourth and principal army on the western side, and mustered, about Aix-la-Chapelle and Liège, a body of nearly 28,000 men, which in that age was a large army. Being much superior in number to the army under Alba, the Prince of Orange was desirous of a battle, and made all possible attempts to bring it on. But the Duke of Alba, knowing the nature of his enemy's forces, and that it was beyond his power to keep together so large a body from one season to another, acted purely on the defensive. This course he adhered to with firmness, though often urged by his officers and troops to lead them to battle. The campaign was thus passed with no other operations than occasional skirmishes or advances and retreats. The prince was compelled to dismiss the greater part of his forces, and to retire, with the few left to him, into winter quarters, when Alba did the same, and both were actively employed during the winter in the necessary preparations for the following spring.

The events which caused and accompanied the commencement of the troubles in the Netherlands have been related in a more circumstantial and detailed manner than our limits will allow to the subsequent proceedings. After the first indecisive campaign, there was a kind of suspension of hostilities, from the exhaustion of the opposing parties. Alba was employed in extorting money from the public bodies, and from individuals, to an unheard-of extent, and with intolerable severity. One demand was

Holland. called the tenth denier, by which one tenth of the amount of all sales were to be paid; a tax which served to impoverish the country, to suspend all industry in trade, and which ultimately tended to exasperate the inhabitants, and throw them into the arms of the insurgent party. The Prince of Orange, on the other hand, was occupied in negotiating treaties with the German princes, who assured him of succours both of troops and treasures. He also visited France, where Admiral Coligny, the chief of the Protestant party, after promising his aid, suggested to him the idea of creating a naval force. This was instantly adopted, and a party of sailors, of those called Gueux-marins, seized upon Briel, a town on the island of Hoorn, by which they secured an asylum for the shipping, and whence they gradually extended their conquests to the other towns and cities which command the entrance to the ocean, and secure those places from naval attack. This was the first step in the formation of that naval power by which the Hollanders became ultimately enabled to secure their independence. Seamen from all parts flocked to the maritime towns as rapidly as they declared for the Prince of Orange; and in Dort, Flushing, Rotterdam, and, indeed, all the places where there were no Spanish garrisons, they joined the prince. Fleets were equipped, which seized on all the Spanish vessels they met with, even in the British Channel, and kept open a communication with the ports of England, whence, by the proceeds of the captures, they could procure stores, arms, and ammunition, to carry on their warlike operations. The growth of the naval power was so rapid, that within three months after the capture of Flushing, no less than one hundred and fifty sail of armed vessels, well manned and equipped, were despatched from that place alone. The canals and rivers which intersect the country were filled with barges and gun-boats, which landed at the Spanish posts, and carried away arms and other effects from the very gates of Ghent and Bruges.

Alba, who was busied in extorting the tenth penny, looked with contempt on the seizure of Briel; but soon awoke to the consequences, and began to draw together his troops to punish the Gueux-marins. His attention was, however, too powerfully drawn to another quarter, and they were left without molestation. The Prince of Orange, the moment he knew himself secure of the naval asylum, began his land operations. At the head of 20,000 men he entered Gueldres, seized Ruremond, Tongres, St Trond, and Tirlemont, and entered Louvain by treaty, where he rested. His brother Louis, aided by 7000 French Protestants, chiefly cavalry, entered Hainault, and surprised the important city of Mons. Another corps under Count de Bergh entered the province of Overysse, and seized Zutphen, Gorcum, and some smaller places. Alba was alarmed at these events, but more at the apprehension that it was not merely the French Protestants, but the French king, who had become the ally of Orange. He turned his attention, first of all, to the recapture of Mons, and after a siege of three months took it on capitulation, a division of the main army which was proceeding to raise the siege having been defeated. After the capture of Mons, Alba collected his forces, and led them to attack the city of Haerlem, in the province of Holland, as preparatory to the conquest of the other maritime positions. That place, defended chiefly by its citizens, made a noble resistance; but after a siege of seven months, in which the exertions and the sufferings of the inhabitants appear almost incredible, it surrendered, and was delivered over to the vengeance of the irritated and unfeeling Spaniards. In this siege, carried on in an aquatic district, and in the winter months, the besiegers suffered severely, especially as they were ill supplied with provisions. Their sufferings and their want of pay caused a mutiny after the capture, which paralyzed for a time the

Holland. operations of Alba, whilst the Prince of Orange was carrying on the siege of Middleburg in Zeeland, which was ably defended, and only surrendered after a siege of two years duration. The states of Holland and of Zeeland had been assembled at Dort, where, notwithstanding the republican jealousy which prevailed, powers almost unlimited were conferred on the Prince of Orange, and a kind of government constructed to manage the affairs of these two provinces.

We have thus sketched the outline of events from the end of the year 1568 till the end of 1573, at which time the court of Spain had recalled Alba, who departed with enormous wealth, and the curses of all classes of the people, in January 1574. He was succeeded in the government by Don Louis de Zuniga of Requesens, but generally called by the latter name. When Requesens assumed the government, he found the affairs of it, in those parts still under the Spanish power, in a dreadful state of derangement. The people were universally disgusted, the army in a state of mutiny, and the finances absolutely exhausted. Though intrusted to adopt a milder system of government, and actually issuing an amnesty, he could not overcome the deep hatred to his country which the Flemings had conceived. He naturally followed the military plan which had been traced out by his predecessor. The Prince of Orange had carried on the siege of Middleburg nearly two years, and Requesens resolved to attempt its relief. His naval forces were collected, and a battle ensued, in which the Spanish fleet was defeated, and most of the ships taken, burned, or sunk. This occurred on the 19th of January 1574, and was followed by the capitulation of the city on the 19th of February. The garrison, the ecclesiastics, and such of the burghers as wished it, were allowed to proceed to Flanders. This treaty was the commencement of a milder treatment of prisoners on both sides, and henceforward the contest assumed a more humane form. The capture of Middleburg was important, as it decided the fate of the province of Zeeland, which was soon rendered unassailable by the Spaniards, whose naval force was far inferior to that of the Prince of Orange. Requesens sent a corps of his army to attack a force under the command of Prince Henry of Nassau, over whom a victory was gained, on the 14th of April, near Nimeguen; but a mutiny immediately broke out amongst the Spaniards, and rendered the success of no value. When the mutinous spirit was somewhat allayed, the Spaniards besieged Alckmaer, but were received by the inhabitants with such resolution that they gave up the attack and concentrated their forces to besiege the city of Leyden. It was carried on with great vigour, and defended with skill and bravery; and after the besieged had for nearly six months endured all the horrors of famine and disease, by cutting some dikes the Spanish camp was covered with water, more than a thousand of the assailants were drowned, and on the 3d of October the siege was abandoned. This secured to the party of Orange the freedom of the province of Holland, as the capture of Middleburg had done that of Zeeland. The Spaniards were thus expelled from every part of those states except the city of Amsterdam, of which they did not quit possession till four years afterwards.

After defeat or after victory the Spanish troops were equally accustomed to mutiny. The repulse before Leyden begot this spirit, which displayed itself by deposing their commander Don Sancho de Avila. They chose one of their own number as a leader, and carrying with them Don Sancho, bound hand and foot, proceeded towards Utrecht, where by plunder they boasted they would pay themselves the arrears owing to them, and they committed the greatest excesses on the small towns which they were able to seize upon. At length some money was paid to them,

Holland. the mutiny was appeased, and Requesens led them to make attacks on some of those islands which compose the state of Zealand. These were all repulsed by Prince Louis; and Requesens, who had superintended the operations in person, at length abandoned all attempts. He was called to Brussels by a mutiny of the Spanish cavalry in that city; but on the day of his arrival he was attacked by a fever, which in a short time terminated in his death.

This brings the events down to the end of the year 1575, at which period an attempt at conciliation was made by the emperor of Germany. A congress was held at Breda, where an ambassador from his imperial majesty, the two brothers of the Prince of Orange, the pensioner of Holland, deputies from Zealand and Gueldres, and two ministers of the king of Spain, met; but nothing was agreed on, after three months spent in negotiation, as the preliminary question of religion could not be settled. The king would only admit of the Catholic faith, and the opposing parties as resolutely maintained that of the reformed church.

In 1576 the Prince of Orange succeeded in the plan he had long formed, of forming such a union between the two states of Holland and Zealand as should concentrate their efforts for the common defence, by placing in his hands, under the name of regent for the king, the whole executive power. This arrangement, concluded in April, was announced to all the cities, and accepted by them; and the prince having taken the oath of fidelity to the privileges of the states, assumed the government, and arranged the administration with judgment, despatch, and economy.

At the same time, within the provinces still belonging to Spain, the death of the governor created the greatest confusion and disturbance. The council of state, consisting chiefly of Flemings, assumed the administration, and, as soon as an answer to their communications could be received from Madrid, were confirmed in that power, but only *ad interim*, until Don Juan of Austria, who was named governor, should arrive. Though composed of only nine or ten members, this council soon became divided into factions, which thwarted each other; they were without pecuniary resources, and could take no measures to remove the difficulty. The consequence of this was, that the Spanish troops, being unpaid, broke into furious mutinies, and, with the pride of their nation, rejected the authority of the council, deposed their officers, chose one of their own number, who was called *Eletto*, indulged everywhere in the most unlimited plunder, and committed the most atrocious barbarities. The movements made by these troops alarmed all the inhabitants of the cities, so that even in Brussels itself the council could scarcely have been in safety without yielding to the impulse of indignation which was displayed by all orders of the citizens. The mutinous troops had taken by storm the fortified city of Alost, between Ghent and Brussels, when the council, on the 29th of July, issued a placard denouncing the Spaniards as rebels to their king and the country. They were depicted as mutinous traitors, and the people of the Netherlands were called upon to exterminate them wherever they were to be found; they were also forbidden to supply them with provisions, and commanded to remove out of their way all money and other valuable effects.

The insurgent army at Alost alarmed the city of Ghent, where the inhabitants had armed themselves; but the castle which commanded the town was held by some Spanish troops, who were in connection with the mutinous army. It was of importance to take the castle; and a party in that place, where the Prince of Orange had numerous secret friends, made application to him for assistance. He, who had foreseen the event and was prepared to meet it, despatched from Zealand eight bodies of infantry, amounting to about 3000 men, with seventeen pieces of artillery, under the command of Colonel Temple,

Holland. an English officer in the service of the states, who entered the city on the 26th of September, and having formed the siege of the castle, caused it to surrender on the 11th of November.

The possession of Ghent was the signal for a general movement amongst the Flemings. In spite of the orders of the king positively forbidding it, the states assembled in each province, and the feeble and divided council gave way before them; and thus the power was vested in a body, who confined some, displaced others, of the council, and changed the government into that republican form which the seven provinces that ultimately obtained their independence afterwards adopted. The king's name was used, but his power was for the time abolished. The new government sent its envoys to the several courts to implore assistance. The emperor and some other princes answered with cordiality, and offered their mediation to effect a general pacification. The king of France (Henry III.) spoke plainly, and showed good will, but said that his opponents, the Leaguists, supported by the pope and the king of Spain, had so embarrassed his affairs as to deprive him of the power of rendering them any assistance. Queen Elizabeth of England received the envoy, Baron Sweveghau, with much distinction. She granted to the states a loan of one hundred thousand pounds sterling, of which forty thousand were immediately paid in uncoined silver, and the remainder was made payable at Brussels by her ambassador. The cities of Ghent, Bruges, and Nieuport were securities for the money; and the states agreed neither to make truce nor peace with Spain without England being comprehended in it. The other conditions were, that the English merchants should be restored to the privileges which they had enjoyed before the troubles, and that the subjects of England who had been banished should not be protected within the territories of the states.

A treaty was soon concluded at Ghent, and ratified at Brussels, between the states on one part, and the Prince of Orange in the name of the states of Holland and Zealand on the other. The chief stipulations were, that the contracting parties should unite to drive all Spaniards from their countries, and then assemble as in states-general before 1555, to regulate the affairs of religion, of the fortresses, and the ships of war; that no attempts should be made against the Catholic religion; that all the ordinances issued by the Duke of Alba should be suspended till they were confirmed by the states; and that in the mean time the Prince of Orange should retain his power as stadtholder of Holland and Zealand. This treaty was signed in the name of the king, and in a short time was acceded to by those other provinces not represented in the states assembled at Brussels.

Whilst these transactions were in progress, the Spanish troops, though diminished in number by their own excesses and the vengeance of the country people, continued in the same mutinous condition. One division of them took Maestricht by storm, and there perpetrated the most abominable injuries to persons and property. Two other divisions, one from Alost and the other from Zealand, united to seize on the rich city of Antwerp; and with them joined the portion of the garrison of the citadel of Antwerp which had cut its way through the besieging army. The citadel was in possession of the Spaniards; and as soon as the rest of the mutineers had been received into it, they stormed the city, which, though bravely defended, was ultimately overcome, a great part of it being burned in the conflict, and what remained, as well as the persons of the inhabitants, became a prey to the infuriated and merciless mutineers. Destruction was thus inflicted on the most flourishing commercial city of Europe, from the effects of which it has never since recovered. The destruction of that city was, however, one of the causes, and not an in-

Holland.

considerable one, of the rapid progress in foreign commerce which was made in Holland during the subsequent prosecution of the long protracted war, and supplied much of the pecuniary means by which that war was maintained. Don Juan of Austria, who had been appointed to the government of the Netherlands on the death of Requesens, was a natural son of the Emperor Charles V. who had ordered him to be educated in secrecy, but suitably, according to a respectable station in life. The history of his birth had been concealed from him until he had arrived at maturity, when King Philip himself unexpectedly revealed it, and acknowledged him as his brother. At an early age he had been employed against the Moors of Granada, and had by his successful exertions gained great applause; but the chief ground of his high reputation arose from the naval victory of Lepanto gained over the Turks, when he commanded the united fleets of the Christian world.

When nominated to the command he was residing at Milan, but instantly departed from thence to Spain, where he received his instructions from the king. He was directed to treat the Netherlands with great mildness at first, but to commit himself to nothing definitive, and on no account to give up any of that unlimited power which the king was firmly resolved to exercise. It was commonly believed that the king gave him an assurance, if he succeeded in restoring the Netherlands to submission, that he should be supplied with forces to land in England, where he should release Mary Stuart from her prison, place her on the throne of Elizabeth, and by a marriage with her become monarch of the British islands. Don Juan rode post through France, at that time in a state of confusion, in the disguise of a servant to one of the nobles who accompanied him, and at length reached Luxembourg on the day on which the mutinous army of the Spaniards had stormed the city of Antwerp. On his arrival there, the disastrous state of the affairs of Spain, which has already been described, seems to have left him no other alternative, after announcing his arrival to the states, than that of acquiescence in the decisions of that body, conjointly with the Prince of Orange. He accordingly gave his assent to the pacification of Ghent, and to that article of it which stipulated the removal of all foreign troops from the country of the Netherlands. Some confidence was thus gained with the states-general, but none with the Prince of Orange, with whom Don Juan had opened a correspondence of an apparently amicable and confidential nature. The troops were in appearance disbanded, or marched away. The Spaniards moved slowly towards Italy, from whence they could be recruited. Some of the auxiliaries were said to have been lent to the Leaguists in France, so as to be within call when needed. In a few months, which were passed in conciliatory measures, Don Juan, rather by fraud than by force, obtained possession of the strong castle of Namur, in the month of July, and established his court in that city, where he soon began to collect troops. This caused an alarm in the states, and they also began to collect their forces. The Prince of Orange was invited to repair to Brussels, in order to concert with the states the measures requisite for the defence of their freedom. Negotiations were begun with insincerity on all sides, for neither could trust to the assurances and engagements of the other. The Prince of Orange, who had entered Brussels on the 23d of September, was consulted on these negotiations, and was in some sense a party to them; though he foresaw, from the very moment of Don Juan's arrival, that no secure treaty could be formed, and that the sword must decide the issue. The states, at the suggestion of the Prince of Orange, had decreed the demolition of those fortresses which commanded the cities, especially those of Antwerp, Ghent, Utrecht, Groningen, and Lisle. This

was the signal for hostilities. Don Juan had recalled the troops on the march for Italy, and those lent to the party of the League in France. The Prince of Parma brought other reinforcements; and thus Don Juan found himself at the head of an army of nearly 20,000 at the end of the year. The army of the states consisted of nearly equal numbers. They were, however, inferior in discipline and in good officers to the forces opposed to them. The two armies were in presence of each other in December. The army of the Spaniards had been so secretly collected, that the states believed that their own troops much outnumbered them, and from this impression gave orders for the attack. On the 31st of January a bloody conflict took place at Gembloux, near to Namur, in which the Spanish force was victorious. The army of the states suffered very severely; their general, Goignies, with many of his men, were made prisoners, and the remnant retreated towards Brussels. The Prince of Orange and states removed from thence to Antwerp. Don Juan, instead of pursuing them, followed up his success by capturing the smaller fortified towns. In the course of the year 1778, he had taken Louvain, Tirlemont, Bovines, Diest, Nivelles, and some smaller places. These conquests were effected by detachments, whilst his main body was encamped near Namur. But he was taken ill in September, and died on the 1st of October 1578. The cause was probably a pestilential fever, but, according to the custom of that age, was most commonly attributed to poison. On his death-bed Don Juan nominated as his successor his nephew the Duke of Parma, who had recently joined him. He was a young man of highly-estimated talent, the son of that duchess who had long been the regent of the Netherlands, and under whom the troubles had commenced.

When the Prince of Orange had retired to Antwerp, he clearly perceived that, from the nature of the country, and the confidence placed in him by the people, he could preserve a secure asylum for liberty in Holland. His means did not extend to the other provinces of the Netherlands with the same commanding effect. He therefore turned his chief attention to that which, with a concentration of his means and exertions, could with most probability of success be attained.

As the ten provinces were at length all brought under subjection to Spain, and finally were transferred to the house of Austria, the transactions relating to them do not appropriately belong to the history of Holland, and will therefore be only so far noticed here as regards their connection with that country.

It was the policy of the Prince of Orange to keep alive the spirit of opposition which still existed in Flanders, because it gave employment to the troops of the Duke of Parma, and time to the inhabitants of the United Independent Provinces to prepare for that firm defence which must be the only means of securing their ultimate independence. Those states also gained much in another view. Holland was a secure asylum, and the inhabitants of the other ten provinces found refuge there, when neither tranquillity nor security could be enjoyed at home. At this period, many of the richest of the traders once more removed their families and their property to the cities and towns of Holland and Zealand. The ruins of the commerce of Antwerp were collected in Holland and Amsterdam, though the last place, from which the Spaniards had been driven out in 1578, received the greater share of it.

Whilst Flanders was torn to pieces by the contest between the troops of the Duke of Parma and those raised by the states, the United Provinces assumed in their temporary tranquillity a more imposing aspect. The important province of Utrecht joined the party of Holland, Zealand, and Friesland. The war had been carried on

Holland.

Holland. against the king of Spain without explicitly renouncing allegiance to him. But after the accession of Utrecht, the declaration of their independence of the authority of that monarch was promulgated. This gave confidence to the inhabitants, and admitted them to treat as sovereign states with any of the other governments of Europe. To these four provinces the three small ones of Zutphen, Overysse, and Groningen were added, and thus formed a compact and easily defended district. They assumed for their arms a bundle of seven arrows, with the motto, *Concordia res parvæ crescunt, discordia maximæ dilabuntur*.

We pass over the endeavours made to establish the Duke of Anjou, brother of the king of France, as the governor, the wars subsequent upon it, and the attempts made to assassinate the Prince of Orange, because they belong rather to the history of Flanders than to that of Holland. It may, however, be proper to remark, that in the intercourse between that duke and the prince, the latter favoured the pretensions of the former; but he seems to have done it without any prospect, perhaps without any hope, that it would do more than operate as a diversion in favour of the seven United Provinces, to whom his chief regards were always directed.

From the death of Don Juan of Austria, at the end of the year 1578, to July 1584, the state of Flanders arrested all the efforts which Spain could make to attack Holland; and the inhabitants availed themselves of it to extend their commerce, to increase their ships, to economize their resources, to accumulate warlike stores, and to organize and discipline the whole of the male population. Spain was too much engaged with other objects to direct any strenuous operations against Holland, calculating that if she could subdue the ten larger and more populous provinces, the submission of the other seven would either necessarily follow, or might be easily enforced. Besides, she was at that time making preparations for the enormous naval force called the Armada, with which she calculated on conquering England, and thought that by that achievement Holland would fall under her power.

The intense personal hatred which existed between Philip of Spain and the Prince of Orange gave birth to the most virulent and threatening manifestoes, which were printed, diffused, and read throughout Europe; and the king even made it generally known, that whoever should succeed in assassinating the prince, should receive a reward of 80,000 ducats, be made a commander of the order of St Jago, and obtain patents of nobility. These offers, stimulated also by religious fanaticism, induced many individuals to arm themselves for the horrid deed. One of them, Geerardt, a Burgundian, gained access to the prince by means of letters from Count Mansfeldt, and, as he was passing from his dinner table to another apartment, shot him with a pistol concealed under his cloak, which discharged three balls into the breast of his victim. The prince fell, exclaiming, "I am wounded. Lord, have mercy on me, and on this poor people!" He then immediately expired. The assassin was taken and executed. The recompense for the detestable deed was subsequently made to his family; for, in the register of the court of Madrid of the 4th March 1589, patents of nobility are entered as conferred on his brothers and sisters, who are described as bearing that relation to Geerardt, a tyrannicide.

This tragical event occurred on the 10th of July 1584, at Delft, where the states of the seven provinces were then assembled. It inspired courage rather than despair among the patriots of Holland. The eldest son of the prince was a prisoner in Madrid, where he had been detained from the commencement of the troubles. His son Prince Maurice was instantly invested with all the power of his parent, though only eighteen years of age; and Count Ho-

lenlohe was appointed with the character of his lieutenant.

The Dutch attempted to enter into negotiations with those powerful princes who were hostile to Spain. The application to France was made at a time when the power of the confederation of the League was so formidable as to preclude the prospect of any aid. Henry III. received the deputies with respect, but recommended them to make application to Elizabeth of England. Offers were made to her of the sovereignty of the Netherlands, which she declined; but she made a treaty stipulating to furnish six thousand troops to be maintained by her, and was to have Flushing, the Brill, and the castle of Rammekins, as pledges. Leicester, her favourite, was appointed to the command, and was to have concurrent power with two members chosen by the states in all military affairs, but was not to intermeddle in the civil transactions.

The imprudence or ambition of Leicester gave much umbrage to the states, and his presence became rather injurious than beneficial to them. The threatening danger from the Spanish Armada, and some degree of disapproval of the conduct of Leicester, induced the queen to recall him and the greater part of the force. The conduct of Leicester had produced the loss of Zutphen and Deventer; but, after the defeat of the Armada, fresh troops were sent from England, and these having drawn the Spaniards towards Ostend, in which was an English garrison, Prince Maurice was enabled to recapture those places. The celebrated siege of Antwerp, though scarcely an operation in which the Dutch were engaged, may be here noticed. It was a long and heavy labour of seven months, carried on by the Duke of Parma in person. During its progress the most extraordinary bravery and skill was displayed by the assailants and the defenders; but the place finally surrendered, and the remains of its commerce were transferred to Amsterdam. After the recapture of Zutphen and Deventer, Prince Maurice, whose forces had been recruited, threatened Dunkirk and Nieupoort, and, after a short but vigorous bombardment, captured the important city of Nimeguen, and other towns in that quarter; and these operations closed the campaign of 1592. The Duke of Parma had advanced with an army into France, and left the management of the war in the Netherlands to Count Mansfeldt.

In the beginning of 1593, Mansfeldt issued edicts forbidding all communication with the revolted and now *de facto* independent provinces, and declaring that no quarter would be given to any who did not join him. Such threats were however of no avail, for Prince Maurice having collected his forces, attacked the strong city of Gertruydenburg; and though Mansfeldt, at the head of 12,000 foot and 3000 horse, attempted to raise the siege, he was foiled. The place surrendered on the 23d of June, after suffering the extreme of famine.

The Spaniards were still in possession of the city of Groningen, where Verdugo, an Italian, commanded. The chief operations of the year 1594 were in that quarter. Much time was passed in able manœuvres between Prince Maurice and that general. But the prince having succeeded in cutting off the communication between Groningen and Germany, that city was compelled to surrender in July. The many repulses which the Spaniards had received, and the want of pay, produced a mutiny, and the soldiers threatened to indemnify themselves by the plunder of Brussels, and other towns in the ten provinces under the crown of Spain. The mutineers were in communication with Prince Maurice, but he declined taking them into his service, though the mutiny was turned by him to the benefit of his country.

In the year 1595 a general discontent against their Spanish masters spread itself in the ancient provinces. It

Holland. was fomented by the Flemish nobility, who, in an assembly convened at Brussels, demanded peace. This affair turned out advantageous to the seven provinces, where Prince Maurice and the states-general were occupied in negotiations both with England and with France, with both of which countries treaties were concluded, in which the Hollanders engaged to supply them with naval forces, some of which assisted Sir Walter Raleigh in his successful attack upon Cadiz.

Philip of Spain, now advanced in years, having become disgusted with the cares of government, his Flemish provinces were placed under the management of the Archduke Albert of Austria. He had under his command an army of 30,000 men, with which he took Calais, and then rather turned his forces towards France than towards the new republicans. The Dutch had by this time grown up into a great naval power. They are said to have had on board of their shipping more than 70,000 seamen. The bloody wars in which they had been engaged seemed to have increased their wealth and their spirit of commercial enterprise. Even their enemy Philip connived at their carrying on a very beneficial trade with his subjects in Spain and Portugal, whilst their cruisers covered the seas, and made numerous captures of the trading ships of those very subjects.

The earnest desire to attain naval superiority which animated the Dutch, was accompanied with a correspondent neglect of their land forces. The arms of France, however, acted as a diversion in their favour, and enabled Prince Maurice in 1597 to defeat one of Albert's generals, and, in consequence thereof, to capture Turnhout, near Antwerp; and in the end of the year, several other towns in that quarter submitted to the states-general. In the same year, negotiations for peace were attempted, under the mediation of the emperor of Germany and the king of Denmark; but the states refused to treat till the king of Spain should acknowledge their independence. The peace of Vervins was concluded between Spain and Henry IV. of France, to the great disgust of Elizabeth and of the United States, who thereby were brought into more intimate alliance.

The commerce of the states was now much augmented. One of their citizens, Balthasar Monchuen, besides trading extensively to India, formed settlements upon the coast of Africa and upon the island of St Thomas. Other merchants sent their ships to the South Seas, through the Straits of Magellan, in the hope of discovering a passage to Japan and China. Companies were formed which sent large ships to the East and West Indies. The trade in the Mediterranean was extensive and lucrative; but, above all, their fisheries on the coasts of England became a mine of wealth.

Though with inadequate force, Prince Maurice, in the winter of 1599, surprised Emmerich on the Rhine, and projected the transference of the seat of war to Germany; whilst Mendoza, the Spanish general, was opposed to him, and invested Bommel; and, though an indecisive battle was fought, Maurice delivered that fortress from the besiegers, and secured his own conquest. After this, party-spirit appeared in Holland, with sufficient fervour to lead to the reduction of the army; but, fortunately for that country, the Spanish troops were so mutinously disposed, that they were unable to take advantage of this diminution.

About the end of 1600, the states were roused to make greater land preparations, and their army under Prince Maurice, in conjunction with an auxiliary English force under Sir Francis Vere, gained the decisive victory of Nieuport, in which the Spaniards lost 5000 men, whilst the loss of the allied army did not exceed 1500, of whom 800 were English. Though Nieuport was invested, Maurice was compelled to raise the siege, when the armies

went into winter-quarters. About the end of 1601, some attempts at negotiations for peace were made, but, like those of the former years, they were soon suspended.

The chief military event of the three following years was the siege of Ostend, in which Vere had at first the command; but in the course of the long operations he was relieved, and joined the prince with his troops, who were replaced by the soldiers of the states. The whole attention of Europe was engrossed by the great display of military art in and before Ostend. Spinola the Spanish general was one of the first of the military geniuses of that age, and Vandernoot, who defended the place, was his equal. With an immense loss of life and expenditure of money, after a siege of more than three years' duration, the place was surrendered by capitulation on the 20th of September 1604.

The death of Queen Elizabeth in March 1603, and the accession of James to the throne of England, gave a new turn to affairs. The temper of that monarch was decidedly pacific, and though at first he in some degree adhered to the alliance with the states, his assistance was small, and in some of the transactions rather adverse. The war was continued between the armies commanded on one side by Prince Maurice and on the other by Spinola, but both were so cramped in their operations by the parsimony or the poverty of their respective governments, that no decisive event occurred. The naval war was more effective. The fleets of Spain from the East and West Indies were intercepted by the Dutch. Tremendous conflicts were carried on, by which some of the vessels loaded with treasure from the New World fell into the hands of the republicans; but a much larger portion of the vessels which contained it were either burned or sunk. The failure of remittances so impoverished the king of Spain that he became disposed to treat for peace. The negotiation began in the early part of the year 1607. At first the required acknowledgment of independence suspended it, but in the month of April 1607 Spain gave way, and a suspension of arms for eight months was agreed upon, without any communication of it having been made to the kings either of England or of France. When the eight months had expired, no treaty had been concluded; and, though no hostile movements were made by land, the captures of the Dutch at sea were continued during the prosecution of the treaty. At length a truce for twelve years was agreed to in April 1609. A general amnesty on both sides was stipulated, and a freedom of trade by sea and land, including both the Indies, was agreed to.

This treaty, though only concluded for a fixed period, was yet a termination of the war as between the king of Spain and the seven United Provinces. The states had no sooner attained peace and independence, than they intermeddled with the affairs of the other sovereign states of Europe, and became involved in hostilities with Germany, in which Prince Maurice, on a disputed succession to the duchies of Cleves and Juliers, took the latter city, and garrisoned it. But the Germans having soon afterwards taken Wesel, a termination was put to the contest by the mediation of England and France.

Almost as soon as the states had concluded a general peace, internal dissensions arose. These were maintained by the nature of their constitution, which conferred on each individual state an independent sovereign authority. The first occasion arose from a theological difference of opinion on a topic, of all others, the most inscrutable by the human faculties. The Protestants had imbibed their opinions from Calvin, and had generally adopted his doctrine of predestination. The professors of the universities had advocated that opinion, when Arminius, a native of Holland, was appointed to the divinity chair of Leyden, and taught the opposite opinion of the freedom of the hu-

Holland. man will. He thus became the head of one sect, whilst a Dr Gomarus, another professor, became the leader of the Calvinistic sect. Theological discussions soon created political parties. Prince Maurice had imbibed the opinions of Arminius, but finding the clergy and the great body of the common people attached to those of Gomarus, he, without regarding the private opinions he held, placed himself at the head of the Gomarists. Barneveldt, the chief civil man in the union, was in opinion a Calvinist; but seeing the nobility and the better educated part of the people supported the system of the Arminians, he became the chief of that party. The acrimony and bitterness with which the contest was carried on soon rendered it of a mixed character, combining religion and politics. Each city possessing within itself independent powers, punished or protected either the Arminians or the Gomarists. Those two eminent scholars Grotius and Vossius defended Arminianism, whilst the synod of Dort, assisted by King James of England and the Archbishop of Canterbury, for a short time maintained the opposite side in the controversy. Prince Maurice, by his influence with the common people, and from being at the head of the army, was enabled in many of the cities to change the magistrates; and when he could not effect that purpose, as at Utrecht, he called in the troops to their assistance. Barneveldt and his party proposed a general toleration of all opinions, and presented a remonstrance to that effect; a proceeding which changed the names, but not the characters, of the party. The Arminians were called Remonstrants, and the Calvinists Anti-Remonstrants, names which have been continued to this day. The party of Maurice, consisting chiefly of the populace of the cities, and their clergy, was ready to tolerate Jews, Mahommedans, and infidels, but would not consent to grant similar toleration to the Remonstrants.

It became evident that the prince was aiming at establishing for himself and his family an hereditary sovereignty over the states; whilst Barneveldt and the higher classes, on the other hand, eager to perpetuate the liberties of their country, formed connections with the court of France, and thence obtained the name of the Louvestein faction, which has been continued amongst the opposers of the absolute power of the house of Orange to the present time. But the Orange party acquired such superiority that Maurice was enabled to seize and imprison the venerable Barneveldt and the learned Grotius, the former of whom, after an infamous trial, when the judges were threatened with death if they did not pronounce the popular sentence, was condemned to death, and beheaded at the Hague on the 13th of May 1619. As the benefactor of his country, he died with the regret of the wise and good of his own time, and has been viewed by succeeding ages as one of the chief authors of the victories, the prosperity, and the liberties of his country. Grotius was still a prisoner, probably not a very strict one. He was allowed the use of books, which passed in a large chest unexamined, and in that chest he was concealed and carried away. He escaped to France, and passed the remainder of his days in an honourable, useful, and upright manner.

The truce was now drawing to a close. The interval which the Dutch had enjoyed had been employed by them, in spite of their internal dissensions, in the most profitable manner. They had prodigiously extended their maritime operations, having been much benefited by the languor of James I. of England, and the ruined state of the marine of Spain. Their ships gave laws from the Baltic to the Levant. They had forced a trade with the Spanish possessions in the western world and in the East Indies; and, besides some smaller acquisitions, they had founded Batavia in the island of Java, which soon became the emporium of the trade of the eastern world.

Philip of Spain died in 1621, just at the time when the

truce between him and the Hollanders had expired. The greater progress the Dutch had made in prosperity and power, the more worthy objects of his ambition did he deem them, whom he still viewed as his rebellious subjects. He had instructed his ambassador to propose such terms of peace as were sure to be rejected, which in fact they were, in the most contemptuous manner. But Prince Maurice was not well supported by the states on land. The operations were not of great moment. The Spaniards under Spinola took Juliers, but were repulsed in an attack upon Haerlem. Maurice made an effort to seize upon Antwerp, which failed; and he returned to the Hague, where an attempt was made by a grandson of Barneveldt and some Arminians to assassinate him. This, though it failed, gave great strength and violence to the Gomarists, and they were most unrelenting in their cruel punishments. The rack and the axe were in constant employment, and to be known as an Arminian was deemed sufficient cause for their infliction. The war by land against the Dutch was continued by Spinola, on the side of Belgium; and though he could not prevent them from recapturing Juliers, and taking Cleves, he collected such a force as enabled him to besiege Breda, which was commanded by an English colonel, Morgan. It was an important place, strongly fortified, and of great interest to Prince Maurice, because it formed the centre of his patrimonial estates. It was ably defended, and during the ten months the siege lasted, the loss of the Spaniards was enormous. They however ultimately succeeded, and a capitulation was signed on the 6th of June 1625.

During these operations, Prince Maurice died in the eighty-eighth year of his age. Ambition alone, which had caused his severity towards the Arminians, prevented him from being the most amiable, as he was one of the ablest men of the age in which he lived. About the same period King James of England died, and was succeeded by the unfortunate Charles I. Prince Henry of Nassau was the successor of his brother, as governor of the states of Holland, Zealand, Guelderland, Utrecht, and Overysse. He continued the military operations against Spinola, but, after the surrender of Breda neither party could boast of having gained much advantage.

The naval operations in some degree compensated for the languor which prevailed on land. The Dutch sent an expedition to the South Sea, which attacked the Spanish settlements in Peru with much success; and at length they also conquered St Salvador and other parts of Brazil, but were soon afterwards obliged to abandon the acquisitions they had made. In the interior the religious dissensions began to revive. Henry prince of Orange was thought to be less rigid towards the Arminians, in other words, more favourable to them, than suited the principles of the Gomarists. This caused such a commotion as threatened a civil war, which was only prevented by the necessity of union against the common enemy. The Dutch fleet had joined that of France, with which power they were in alliance; and this united force was attacked by the ships of the French Protestants under Soubise. They were defeated, and the Dutch admiral's ship was blown up, with himself and his crew. This caused the greatest joy among the common people in Holland, who detested the conduct of their chiefs; and in the city of Amsterdam their houses were pillaged, and their persons grossly insulted.

The threatening appearance of the thirty years' war in Germany induced the states to increase their land forces in 1626; but during that and the following year only indecisive operations occurred, as the imperial general, Tilly, did not make the expected attack on their frontier towns. The Spaniards made Dunkirk the place for collecting a great number of privateers, by which the Dutch commerce was much annoyed, and many bankruptcies occa-

Holland. sioned amongst the merchants of Amsterdam. This induced the Dutch to blockade that port so closely that the system was checked, and in 1628 their East and West India fleets all arrived in safety, loaded with valuable cargoes belonging to the two great commercial companies which had grown up in Holland.

During the same year the fleets of Holland were remarkably successful against Spain. Peter Adrien captured twelve of the largest West Indiamen in the Bay of Honduras. Admiral Heine had still greater success, having a larger force, and in the Bay of All Saints captured so many ships laden with sugar, that the quantity, when brought to Holland, lowered the price of that commodity in all parts of Europe. He then with thirty ships intercepted the Spanish plate fleet, and, after ravaging the coasts of Spain and Portugal, returned with prizes valued at more than fifteen millions of livres. But the state of Holland was far from being tranquil. Fresh umbrage was taken by the populace at the Prince of Orange, because he had appointed some of the Arminians as magistrates, and the people of Amsterdam refused to obey them. This, with tumults amongst the seamen on account of the inadequate distribution of the prize money, caused serious commotions, which were with difficulty and some sacrifices of life put down.

The successes of the Dutch at sea had a favourable influence on the land operations of the following year. Want of pay had produced mutiny in the Spanish army. The Dutch vigour was again awakened, and the Prince of Orange furnished with a powerful army. An active campaign, in which Turenne, Montecuculli, and some other of the most celebrated warriors of the age, bore a part, was closed, by the capture of Bois-le-Duc on one side, and of Wesel on the other frontier of Holland, in spite of all the efforts of the Spaniards to raise the sieges of these places. In the year 1630 the Spaniards renewed their efforts to defend the places they held on the German frontier, but were so unfortunate that, after fruitless attempts to organise a German Catholic confederacy against Holland, they were induced to enter into a negotiation for the conclusion of a truce during thirty-four years. But this negotiation was rendered ineffectual, principally by the intrigues and the influence of the French minister Richelieu, who had by this time formed a strong party in Holland, in opposition to that of the Prince of Orange; a party which continued up to the present age, and to the existence of which may be attributed the enmity displayed by the successive heads of that family to the French government. After the rupture of the negotiations, John of Nassau, with a force, aided by some of the German Catholic princes, of troops and water craft, made the attempt to separate Zealand from Holland. The expedition was met by the Dutch gun-boats; a terrible conflict ensued; the Spanish flotilla was either sunk or captured; and 5000 men were made prisoners, who entered immediately into the service of Holland. This blow was followed up by the Prince of Orange, with his whole force, augmented by the junction of 12,000 Swedes of the army of Gustavus Adolphus, with whom the states had made a treaty, by an attack upon Maestricht, which at length capitulated, as did also the fortified city of Rheneberg on the Rhine, by which Holland became secure from all invasion on the side of Germany. At this time attempts were again made towards negotiation; but the interference of the Austrian general Pappenheim, who had garrisoned some of the towns belonging to Spain, prevented, by his claims, any treaty from being brought to a pacific conclusion.

The Dutch army for the campaign of 1633 was more powerful than at any former period, and was thought sufficiently strong to have completed, with a general of such talents as the prince, the entire conquest of Spanish Bra-

bant. He took the field for that purpose, but the excessive rains of that season, the great inundations, the sickness which prevailed in the army, the scarcity of provisions, and other inconveniences, compelled him to put his army into winter-quarters at a very early period, without having effected or scarcely attempted any object of importance. The year 1634 passed over with no memorable displays of hostile movements. The death of Gustavus Adolphus in the midst of the vast operations in Germany, of which he was the animating soul, caused so many and various negotiations, that the whole of Europe had its attention directed to diplomatic discussions. The war between the Spaniards and the Dutch languished in the Netherlands, though it was carried on at sea much to the benefit of the latter party. In this year, 1635, a partition treaty was entered into with France by the states, contrary to the will of the Prince of Orange, and their ally the king of England, by which the provinces of Luxembourg, Namur, Courtray, Hainault, Artois, and Flanders, were to be transferred to the king of France, and those of Brabant, Guelderland, and the districts of Waes, Mechlin, and the rest of Flanders, to the United States. In pursuance of the objects of this treaty, the fleets of France and Holland were united together; but preparations from England to place her marine in opposition induced them to return to their respective ports. The attempts by land were equally ineffectual. France marched an army of 20,000 foot and 7000 horse into Brabant, and the states had equipped one of nearly equal force. These united troops were to be commanded by the Prince of Orange; but whether that commander, from being averse to the service, neglected to accomplish its objects, or whether the arrogance and barbarities of the French disgusted their allies, such dissensions arose between the officers, that no movements proved beneficial, and the campaign was closed at an early period. The Dutch withdrew to their own country, and the French went into winter-quarters at Ruremond, where it is said more than 6000 of them died, from want and disease. Cardinal Richelieu and the Prince of Orange cherished a mutual animosity, which, though it neutralised their land operations, did not cause a rupture of the alliance that had been formed. The Dutch were successful by sea, where they defeated a Spanish squadron near Dunkirk; and having blockaded that port, secured a safe return to their numerous trading ships from the East and West Indies. In the same year they fitted out an expedition, with the design of extending their power in Brazil. This force, under the command of Prince Maurice of Nassau, consisted of thirty-two ships, with 2700 land forces, and arrived safely at its destination.

The year 1637 was distinguished by the efforts made to capture Breda, which was occupied by a Spanish force under Fourben, a brave and skilful officer. It was invested by the Prince of Orange, and several attempts to relieve it failed, so that after a long siege it capitulated, but not till the beginning of the year 1638. In that year a great project was formed by the Prince of Orange for the capture of Antwerp. It was well designed, but failed from unforeseen circumstances, such as often occur in operations combined of marine and of land forces.

The campaign of 1639 was planned by the Spaniards on a gigantic scheme, but was chiefly directed to naval objects. The Dutch admiral Van Tromp attacked a squadron of ten large men of war, near Gravelines, on the 18th of February. The fight was long and obstinate, but ended in the total defeat of the Spaniards. Their admiral, with three of the largest ships, was taken prisoner; the vice-admiral's ship was burned by the crew, and four of his division were captured; and their loss in men exceeded 2000. Notwithstanding this disaster, the Spaniards equip-

Holland.

Holland. ped a tremendous force under the command of D'Ouendo, consisting of eighty-seven large ships and numerous transports, with 20,000 land forces on board. A junction was formed of the two divisions, one from Cadiz and the other from Corunna. Van Tromp met and engaged this force, sunk the ship which bore the admiral's flag, and took four of the others, but was prevented by a fog from following up his success, whilst from the same cause the Spaniards took refuge in the Downs, where there was an English fleet to protect them. Van Tromp having received reinforcements under Evertzen, and, along with these, orders to renew the battle, desired the English fleet to withdraw; intimating, that if that request was not complied with, his orders were to fight both. Pennington, the English admiral, had doubts of the fidelity of his people, and no confidence in the Spaniards, who were ill disciplined and badly equipped. He therefore declared for a neutrality, but stated that he would join the fleet which should be attacked. D'Ouendo had been advised to withdraw, but it was no longer in his power to do so. Pennington, under pretence that the Spaniards had violated the neutrality, withdrew his protection. Van Tromp then began the attack, and the Spaniards were totally defeated. Fourteen Spanish ships of war were destroyed, amongst which was the *Teresa* of a hundred guns, with eight hundred men. The vice-admiral of Spain and the admiral of Galicia shared the same fate; sixteen large ships were taken, with 4500 prisoners; fourteen were wrecked between Boulogne and Calais, and the remainder were saved by the interposition of the English. Of the whole armament, only eight ships under D'Ouendo reached Dunkirk in safety. The Spanish loss in killed exceeded 8000 men. Whilst these naval triumphs were achieving in Europe, the Dutch were equally successful in the operations against the Spaniards in Brazil. Their admiral Count de la Torre had been dispatched from Spain with forty-six large ships and a numerous body of troops, many of whom died on the passage, and the others arrived in a sickly state. The Dutch fleet consisted only of forty-one ships, mostly inferior in size to those of their adversaries, but well disciplined, and commanded by two admirals of great bravery and skill, Loof and Huggins. The Spanish fleet previously in Brazil joined that under De la Torre, and they thus amounted to ninety-four ships. An action took place which lasted during several days. Loof was killed at the commencement, but Huggins at length gained a complete victory, in which the Spaniards lost twelve of their largest ships, and 4000 men, whilst the casualties in the Dutch fleet did not exceed one hundred. Disease still further reduced the Spanish force, and thus left Prince Maurice nearly master of that country. The prince then accomplished the conquest of Maranham, and despatched an expedition to the shores of Africa under Admiral Jol, who captured Congo, the island of St Thomas, and the other establishments which the Portuguese had formed on that coast.

At this period Portugal revolted from Spain, and, under the house of Braganza, declared itself an independent kingdom. The new king, John IV., concluded with the Dutch a treaty for a truce of ten years, in all the dominions of both countries, which, however, the latter are accused of having disregarded as far as related to Japan, whence they drove away the Portuguese, and secured for themselves the exclusive trade. The narrative of the transactions in Brazil is given in another part of this work, under that article; and, referring to it (vol. v. part i. page 191), we only add that it was finally abandoned by the Dutch in 1654.

The war between the states and their ally the king of France was continued, but with no great vigour. The jealousy of the Prince of Orange was increased by the dis-

covery of the disinclination of Cardinal Mazarin, the successor of Richelieu, to his capture of Antwerp. He succeeded however in taking Hulst and Lillo, and thus secured a powerful barrier on the Flanders frontier. The negotiations for a general pacification were begun in 1642, and did not close till October 1648, when the celebrated treaty of Westphalia was signed at Munster and Osnaburg. In the first of these years, the treaty between France and Holland was renewed, but was scarcely in activity, as all the military operations of the several powers were in some measure, though not wholly, suspended, except that the Dutch availed themselves of the naval superiority they had acquired, by annoying the Spaniards in every quarter of the world.

Towards the close of the negotiations in Westphalia, the Prince of Orange died, in his sixty-seventh year, and was succeeded in his dignities by his son, William II. The states, regardless of their engagements with France, and in spite of the obstacles interposed by the French ambassador at Munster, entered into a separate treaty with Spain. This treaty was speedily ratified, and its terms formed a part of the general pacification of Europe. The king of Spain acknowledged the independence and sovereignty of the states, and a clause of *uti possidetis* in all parts of the world formed one of the articles. From the peace of Westphalia, the transactions of the United States, whose independence it had legalized, were so intermingled with those of the other European powers, that they form part of the general history of Europe. In continuing this narrative, many of the events which regarded the country here treated of, though important in themselves, must be slightly passed over, because they are to be found under the heads of ENGLAND, EUROPE, FRANCE, and GERMANY.

The conclusion of hostilities had found the nation in a condition of great poverty as related to the governments of the several states, but of great wealth as regarded numerous individuals. The states were deeply in debt, but their creditors were almost exclusively citizens, not to say subjects of the country. This produced what has been called the funding system, which has since been followed by other nations.

Disputes had arisen between the states of Holland on one hand, and the Prince of Orange and the smaller states on the other, respecting the diminution of the army and navy, and the conduct of the officers who had abandoned Brazil. These controversies were carried to such a height that the Prince of Orange would have besieged Amsterdam, towards which he had actually advanced, if he had not been prevented by the opening of the sluices, by which his army would have been drowned. This excited against the prince great unpopularity, when he was carried off by the small-pox, in the twenty-fourth year of his age, leaving no son, but his wife pregnant, who was delivered of a son, afterwards William III. king of England. The civil wars of England were favourable to the trade of the Dutch, though it involved them in war with the government which succeeded the death of Charles I. The several parties in Holland had carefully watched to maintain a neutrality between the monarchical and republican parties in England; but the intemperance of the royalist emigrants, displayed in the murder of Dorislaus, who had been accused of participation in the legal murder of Charles, and of some other rash proceedings, gave the republicans a pretext for commencing hostilities. This led to a naval battle in 1652, when Blake gained some advantage over Van Tromp, though his fleet was much inferior, at least in number of ships, if not in weight of metal. The Dutch instantly fitted out a still larger fleet under the command of De Ruyter, which was met by the English channel fleet under Sir George Ascough. They fought during three successive

Holland. days, but parted, each claiming a victory. De Witt was then appointed commander in chief of the Dutch fleet, with De Ruyter as his second. Blake, who had sailed to the north after his former battle, collected his ships, and was reinforced by Admirals Penn and Bourn with their squadrons. The two fleets engaged on the 30th of October. The battle was most resolutely contested, but night terminated it before it was decided, and the next day the Dutch entered Goree, declining farther conflict. The fleet of Holland was quickly repaired and reinforced, and placed once more under the command of Van Tromp. Blake had not been furnished in as prompt a manner with reinforcements as his antagonist, and was thus inferior. A tremendous encounter took place on the 25th of November, in which the Dutch were victorious. In this action Blake's flag-ship was disabled, two others were taken, two burned, and one sunk, whilst Van Tromp lost but one of his ships, which was blown up by accident. The engagement lasted from eleven in the morning till six in the evening, when darkness favoured the escape of the shattered remains of the English armament.

In the early part of 1653, both the republics addressed their chief attention to the preparation of their fleets. Blake was enabled to muster sixty sail, with which he attempted to intercept a large convoy of merchant ships, protected by Van Tromp's more numerous, if not more weighty force. On the 18th of February the two contending fleets met, when there ensued an obstinate and bloody conflict, which lasted three days, at the end of which Van Tromp retreated with the loss of eleven ships. The English had lost but one, but the whole fleet was so shattered that they could not pursue. The loss in killed and wounded was nearly equal on both sides; and though the English gained the victory, Van Tromp, by his excellent seamanship, was enabled to convey in safety to the Dutch ports the numerous trading vessels which he had been sent to protect.

At this period Sweden discovered a disposition to join her fleets to those of England, but the diplomatic skill of the Dutch ambassador prevailed on her to agree to a neutrality; and the king of Denmark made a treaty, stipulating to furnish to the Dutch a fleet of twenty sail, to confiscate the English ships in the port of Copenhagen, and to exclude all English vessels from trading in the Baltic. The Danish ships never joined, but the treaty enabled the Dutch to obtain supplies of timber and other stores. Though secret negotiations for peace had been entertained between Cromwell, now master of England, and De Witt, recently appointed pensionary of Holland, yet, as they terminated in nothing, the most extraordinary preparations were made to continue the conflict. In the beginning of June, Van Tromp, seconded by De Witt and De Ruyter, appeared on the ocean with a fleet of ninety-eight men of war and seven fire-ships. They were speedily met by an English fleet of ninety-five sail and five fire-ships, commanded by Blake, Monk, and Dean. On the 2d of June an obstinate battle took place, which speedily terminated in favour of the English. The victory was complete. Three of the best Dutch ships were sunk, two blown up, eleven captured, with many merchantmen; and the whole of them would have been destroyed, but for their timely retreat to the shoals, where the larger English ships could not follow them. The English did not lose a single ship, but Admiral Dean, one captain, and some few inferior officers and seamen, were killed. Van Tromp attributed his defeat to the inferiority of his ships in size and in weight of metal, and to the want of sufficient ammunition, especially gunpowder.

In consequence of this disaster, the party opposed to the house of Orange raised a cry in favour of peace, and some secret negotiations were carried on with Cromwell;

but the public voice was strongly in favour of the Orange party, and compelled the government to renew the naval war. Another fleet superior in numbers was hastily prepared, and ready to proceed to sea in the middle of July. This last fleet amounted to one hundred and twenty sail, and they proceeded as soon as collected to engage the fleet of England, commanded by Monk, Lawson, and Penn, between Scheveling and the mouth of the Meuse. But Tromp fell early in the action, and his death had a bad effect. A rout followed, and the Dutch lost twenty-six ships, with 4000 men killed, and near 2000 prisoners. The English lost some ships, had 600 men killed and 1000 wounded; but their ships had been so severely shattered that they were immediately obliged to seek repairs in their own ports.

The Dutch, though defeated, were not dispirited, and prepared to renew the contest, unless Cromwell would abandon his proposition for the annihilation of the power of the Orange family. He however had determined on a war with Spain, and on expeditions to Spanish America. He withdrew his propositions respecting the house of Orange, but obtained others excluding the royal family of England and their adherents from all refuge within the states, and thus a peace was concluded. The states of Holland bound themselves to exclude the house of Orange from the stadtholderate, but the other states did not agree to it; some of the members even of that province protested against the exclusion, and it was highly unpopular with the great body of the citizens everywhere but in Amsterdam.

The war with England, though short in its duration, had been very expensive as well as sanguinary. It was however no sooner at an end than the Dutch were engaged in hostilities with the Portuguese respecting their settlements in Brazil, which were terminated without any decisive naval combat. But many of the ships of Portugal were captured; and De Ruyter was sent with a fleet to make demonstrations before Lisbon, but having encountered severe storms, his ships were so much damaged that he was compelled to return to repair them, and soon afterwards peace was concluded.

The Dutch next interfered in a contest between the Danes and the Swedes. The latter power had besieged Copenhagen, when the Dutch admiral Opdam was despatched to the Baltic for its relief. He attacked and defeated the Swedish fleet under the walls of Cronenburg, and, by the supplies given to the Danes, saved their capital. A peace was soon afterwards concluded between the northern powers, through the mediation of Holland and England.

The death of Cromwell, in September 1658, had a favourable effect on the Orange party in the United Provinces, whilst the restoration of Charles to the throne of England strengthened it still more; and, though Holland opposed it, a settlement of a large sum was voted to support the household, and carry on the education of the prince. This became necessary from the French king having, upon some very frivolous pretences, seized on the principality of Orange. Charles and his adherents were full of animosity towards the Dutch; and they, elated with their independence, and their powerful naval forces, were not disposed to yield to the indignant superiority which the restored monarch had assumed. The Louvestein faction had again, under De Witt, reared its head in Holland, and some efforts were made to form a union with France, with the view of making a conquest of the ten Netherland provinces, and dividing them between France and Holland. By this proceeding, suspicions and jealousies were created towards the states, on the part of all the other governments of Europe. Towards England the Dutch had shown some animosity, and held language the more presumptuous because

Holland. their party in England, the remains of the Cromwell faction, had assured them that, from the want of money, Charles would be unable to go to war. To the dismay of the Louvestein party in Holland, the king resolved on hostilities; and in April 1665, his parliament having voted abundant supplies, a fleet under the command of the Duke of York issued forth, and, after the capture of some merchant ships, finding no enemy, returned to Harwich. The states of Holland and Zealand with great activity prepared a naval force of 120 sail of vessels. The commander, Opdam, was met on the 1st of June by the Duke of York with 100 sail, and, after some manœuvring during two days, a battle was fought, in which the English were victorious, chiefly, as the Louvestein party affirmed, from the treachery of some of the captains of the Dutch ships. Their admiral was blown up in his flag-ship; the second in command, Cartemaer, was wounded, and died a prisoner; and eighteen ships, with 6000 men, were captured. The loss of the English was but one ship, and that of men on board the duke's ship was 200: the rest of the fleet had suffered very slightly; but Admiral Lawson, one of the most brave and skilful of the English commanders, fell in the conflict.

The remains of the Dutch fleet made a skilful retreat, and great vigour was exerted to reinforce it. The plague at that time raged in London, and prevented equal exertions from being made, so that the Dutch were enabled early in the following year to assemble a force of eighty-three large ships, furnished with much heavier metal than they had before employed. This force was greater than any that the English could oppose to it. A part too of the English fleet had been despatched to cruise in the mouth of the Channel, by which the grand fleet under the Duke of Albemarle was rendered still more inferior to that of the enemy. The Dutch were commanded by De Ruyter, and the opposing fleets met, and engaged on the 1st of June. The contest continued with great vigour throughout the day; but a reinforcement of sixteen ships having joined De Ruyter, Albemarle drew off, but being pursued, he turned on the enemy, and renewed the battle. During this fight the English Channel fleet made its appearance under Prince Rupert. The contest continued, on the whole, four days. The English then retreated in good order, with the loss of twenty-two ships. The Dutch had lost only seven ships, and were enabled to keep the sea, thus claiming the victory, and even threatening a descent on England.

The English fleet was so quickly reinforced, that on the 24th of July it again appeared at sea, and once more encountered the enemy with success. Three of the Dutch admirals and twelve captains were killed, with 2000 men; and seven ships were sunk, but none taken. After this last battle the English had the command of the sea, and inflicted a severe retaliation for the losses and mortifications they had endured. This produced great exhibitions of party-spirit in Holland, and also disposed them to peace. England, by the extravagance of its sovereign, by the sufferings of the plague and of the fire of London, and the intrigues of France, was much in need of peace.

Conferences were accordingly opened at Breda; but King Charles, with the negligence which characterised his government, had not stipulated for a cessation of hostilities during the negotiations. De Witt took advantage of this, and despatched a fleet to the Thames, which advanced to the Medway, and thus closed for a short time the port of London, at the same time threatening the naval arsenal of Chatham. This in its issue was little more than a bravado, though, after retreating from the Thames, the Dutch made some valuable captures. The negotiations at Breda were however carried on, and peace finally concluded on the 10th of July 1667.

This treaty was followed by one between England, Swe-

den, and Holland, designed to oppose the growing power of France. The king of England, at that time a pensioner, as well as some of his ministers, on the court of France, behaved with the greatest duplicity, and, upon the most frivolous pretences, resolved to aid France in her projects to conquer the whole of the Netherlands. Under pretence of supporting the triple alliance, Charles obtained money from his parliament, and then determined to attack the Dutch commercial fleets, which were navigating the ocean in full security in the state of peace which had been established. A rich fleet from the Mediterranean was expected to arrive in 1672, when Admiral Holmes was sent with a naval squadron to intercept it. Holmes assumed a pacific behaviour, but the Dutch distrusted him. He made an attack on the fleet, and took one of the ships of war and three small merchant vessels; but the rest, fighting as they retreated, reached the ports of Holland in safety. This naturally produced a declaration of war; and France, joined with England, was engaged in a contest, the object of which was to conquer the whole of the Low Countries, and subject them to the dominion of France.

The violent party-spirit in Holland was ground of alarm. The jealousy of the house of Orange had induced the party of De Witt to neglect the land forces, and the army was in a state of indiscipline, and especially in want of skilful officers, as nearly all the more experienced men of that profession were adherents of the house of Orange, and on that account were not employed. The naval force was in a far better state under the immediate control of the Louvestein faction, though many of its commanders were of the Orange party. De Ruyter was enabled speedily to fit out a fleet of ninety-one ships of war and forty-four fire-ships, and with them sailed to attack the fleet of England and France. This combined force, under the Duke of York and Marshal d'Estrées, was at anchor in Solebay on the coast of Suffolk, where the Dutch hoped by the help of their fire-ships to achieve their destruction. But the united fleets either cut or slipped their cables, and fought the Dutch on the open sea. The fight was tremendous, and was only ended by darkness, when the Dutch withdrew to their own ports. The loss on both sides was nearly equal, but heaviest on the English ships, as their new allies took but little share in the action. It was supposed they had secret orders to spare their own ships, whilst the Dutch and English should weaken each other, a supposition confirmed by subsequent events.

In the mean time the army of France had begun to act on the land side, under Louis XIV., who himself took the field. It was the most numerous and best appointed which Europe had ever seen. It amounted to 120,000 men, including the auxiliary troops of the elector of Cologne and of the bishop of Munster. The Dutch had not more than 25,000 to take the field, and the elector of Brandenburg had engaged to furnish an equal number, on the condition that the Dutch navy should assist him in taking Pomerania from the Swedes. The internal state of Holland was disturbed by party-spirit, but neither party were disposed to submit to a foreign dominion. The partisans of De Witt had projected a flight by sea, and made some preparations for the transport of 50,000 families to Batavia. The young Prince of Orange, though of a sickly frame, resolutely encouraged a spirit of defence, hopeless as it appeared; and when asked what he should do if the French should conquer the country, gallantly replied, "die in the last ditch." This inspirited others, and by the universal voice he was declared stadtholder with unlimited power, and the De Witts were prosecuted, stripped of their wealth, sentenced to perpetual banishment, and murdered by the populace.

In the mean time the French had made a rapid progress, and, proceeding by the Rhine, had subdued the provinces of Utrecht, Guelderland. and Overysse. Amsterdam,

Holland. Rotterdam, the Hague, with Middleburg, and the islands, were reduced to great straits, but were held by the Prince of Orange. As a last resource, the patriotic resolution was taken to drown the country, with its invaders. By this step, when the sluices were opened, the French were in part drowned, and such diseases broke out in their army that Amsterdam was saved. Louis had made more than 24,000 prisoners. These he could no longer keep, and on their release they joined their countrymen. The spirit shown by the Dutch had excited an interest in their favour with the emperor of Germany and other princes of the empire, and even the Spanish governor of the Netherlands sent to their aid a force of 10,000 men. A diversion too was operated in behalf of the Dutch by the elector of Brandenburg, and, though impeded by the French general Turenne, it proved of some benefit to the states.

Charles, though somewhat dissatisfied with the French, sent an English fleet to act in combination with that of France, and conquered the province of Zealand; but contrary winds rendered the attempt unsuccessful. In the beginning of 1673, an attempt was made by a French division under the Duke of Luxembourg, to march over the ice and seize Amsterdam and the Hague; but this attempt failed with great loss to the invaders, owing chiefly to a sudden thaw. In the same year a combined English and French fleet, the former commanded by Prince Rupert, and the latter by D'Etrées, engaged the Dutch fleet under De Ruyter and Van Tromp. After much cannonading, in which the French were accused of backwardness, the conflicting navies returned to their ports, each of them claiming a victory. This occurred on the 14th of June.

By this time Spain had declared war against France, the Imperialists had advanced, the invading army was compelled to abandon its conquests in Holland as rapidly as it had gained them, and the dominions of the elector of Cologne, the ally of France, including the city of that name, and Bonn, were occupied by the allies and the armies of Holland.

These events led to negotiations under the mediation of Sweden, and in 1674 a peace was concluded between all the belligerent powers. The transactions of the negotiators were so managed by the address of the Prince of Orange, as to enable him to lay the foundation of the grand alliance, by which, in subsequent periods, after his accession to the English throne, the power of Louis XIV. was reduced to the lowest point.

In 1677 the Prince of Orange was married to the Princess Mary, daughter of the Duke of York, and niece to Charles; an event hailed as favourable to their interests by the Dutch, and by those in England who were unfavourable to the mean dependence on the French court, to which Charles' pecuniary wants had subjected him.

The Dutch sent a fleet under De Ruyter to join that of Spain in the Mediterranean. In a contest with the French De Ruyter was mortally wounded, though his fleet was victorious; but in a subsequent battle the Dutch and Spaniards were defeated with great loss, by which the French became masters of the Mediterranean.

The Prince of Orange had attained to supreme, almost to absolute power in Holland. His ruling principle was hostility to France, arising from the manifest ambition of Louis XIV. With this impression he was induced to direct all his efforts to counteract the influence of France, especially amongst the German states. As his father-in-law James, who had ascended the English throne, was acting in an opposite direction, to the great disgust of the leading Protestants of his dominions, the prince opposed him by maintaining a correspondence with the discontented. They were received by him with some degree of privacy; but as James proceeded in his measures against the established religion, they became too numerous to escape the notice of

France, though they engaged but little share of the attention of James, probably from the deceit of one of his ministers, who has been accused by history of having acted a false part towards him. A jealousy existed, though with no great force on the part of James, towards France, and this induced him to decline the acceptance of offers of succour from Louis XIV.

The Prince of Orange, under the pretext of a dispute with Bavaria and the elector of Cologne, collected an army of 14,000, with transports sufficient to convey them to England. After being once driven back by storms, the forces landed in Torbay on the 4th of November 1688; and thus was effected that change of succession usually called the Revolution, the details and consequences of which belong more to the history of England than to that of Holland.

The change of sovereigns brought England into the grand alliance against France; and the united navies, in 1692, fought the battle of La Hogue, in which, after a contest of three days' continuance, the French admiral Tourville was completely beaten, and suffered the loss of sixteen of his largest ships. The Dutch commerce suffered considerably by the privateers of France, especially by the operations of the celebrated Du Bart; but these and other hostilities were suspended by the peace of Ryswick, concluded in 1697.

The death of King William occurred in 1701, just at the commencement of that war respecting the Spanish succession, which continued till the peace of Utrecht, in the year 1712. The transactions connected with it belong more to the history of other countries than to that of Holland, though the Dutch states under the succession of William, who was created stadtholder, continued to bear a considerable share in the contests.

About the year 1742 the Louvestein party had gained the upper hand in Holland; and Cardinal Fleury, the French minister, engaged the states in some intrigues, and even hostilities, upon which a stadtholder was again appointed, and soon afterwards a general peace was concluded, that of Aix-la-Chapelle, in 1748.

The prince stadtholder died in 1751. He had seen but little service in the field, yet he had proved himself an active and skilful chief of the republic. He left a son and daughter, both minors; and his office was intrusted, as well as the education of his children, to their mother, a daughter of George II.

Whilst the Seven Years' War raged, from 1758 to 1763, Holland maintained its neutrality, or at least affected to do so. Great complaints and many discussions arose with England, on a question of neutral rights, which has continued till the present time; but they led to no events of any importance. When the war between England and her American colonies broke out, the question of neutral rights was again resumed; but, in the midst of the discussions on that subject, it was discovered that an attempt at a treaty with those called by us our rebel subjects had been favourably received in Amsterdam, and Mr Laurens, an American ambassador on his passage, was captured with the correspondence. This led to hostilities, in which St Eustatia in the West Indies was taken by the English. In the year 1782 a Dutch fleet was equipped, and met on the Dogger Bank by an English fleet of nearly equal force under Admiral Parker. A bloody fight ensued, which terminated in favour of the English. The peace which followed, in 1783, restored tranquillity to Holland, which had suffered severe losses by captures during the short hostilities that had been carried on. After the peace, the Anti-Orange party in Holland, which, from the hereditary dignity having been conferred on that family, had appeared extinct, gained fresh influence, and again raised its head. The Princess of Orange, the sister of the king of Prussia, had been grossly insulted, upon which that monarch de-

Holland. **manded satisfaction**, and this being refused, he marched an army into Holland, which was feebly defended by the clamorous boasters of their bravery. Amsterdam was occupied by the Prussians in September 1787; the stadtholder was reinstated in the power of which he had been deprived; and a strict alliance was formed with England and Prussia. Though tranquillity was thus restored, the party which had been suppressed were dissatisfied, and watched for the fittest opportunity to avenge their mortifications.

Nor was it long before an occasion presented itself. In 1794, when the French republican flag was displayed on the frontiers, the defeated party were active and clamorous, and when the country was invaded by the army of Pichegru, they gave it every assistance in their power. This state of affairs, with a frost of great intensity, which admitted the passage on the ice of the artillery and heavy baggage of the French army, rendered the conquest of Holland of easy accomplishment. In 1795 the Orange family fled and took refuge in England, whilst a republican constitution, framed by the French faction of the day, was established, with a directory of five persons as the executive power. The new republic, called the Batavian, was compelled to cede to France some parts of its territory, with the cities of Maestricht and Venlo, and the province of Limburg. An immediate demand was enforced for the payment of ten millions sterling, and the army of France was to be paid, fed, and clothed at the expense of the Batavian republic. Under this state of things, one part of their navy was given up to the British by the dissatisfied seamen, another part fought and were defeated; their colonies surrendered or were taken by the same power, their commerce was confined to mere coasting, and the bank of Amsterdam nearly shattered; but not a fraction of the pecuniary demands was abated by their new allies.

The constitution was new-modelled in 1801. The number of the directors was diminished, a kind of upper house was created in imitation of the council of ancients in France, and the country was divided into eight departments. The peace of Amiens gave back to Holland their colonies in South America and the Cape of Good Hope, but left Ceylon in the hands of England. When the war was renewed, the restored colonies were again captured, their ports were strictly blockaded, and every hope of prosperity was extinguished. In April 1805 a new constitution was introduced by France, and Schimmelpenninck was made sole director; but his integrity was unable to serve his country in the difficult circumstances in which both he and it were placed. It was therefore determined by Bonaparte to create Holland into a separate kingdom, and place his brother Louis on the throne. This was executed in June 1806. On his accession Louis availed himself of the talents and integrity of the late director, and acted, as far as he was able, for the benefit of the people over whom he had been placed as sovereign. But none of his efforts proved effectual in removing the general distress, and even in the few which were made, he was so controlled by his imperial brother, that, without communicating his intention, Louis withdrew himself from Holland, renounced all authority, and, with but scanty means of subsistence, took up his residence as a private individual in the dominions of the emperor of Austria. This step has been represented as having been hastened by his incapacity to relieve the distress which had been produced in his dominions by the landing of the English in Middleburg in their attempt upon Antwerp in 1809.

Louis retired in July 1810, and Holland was by a decree of the emperor incorporated as an integral part of his empire; Amsterdam was declared to be the third city of the imperial dominions; the French conscription law was extended to the whole of Holland, and those taken under it were equally divided between the land and the sea service;

and the country was then, for military purposes, formed into two divisions.

Under this military yoke the Dutch suffered till after the battle of Leipsic in October 1813, when a part of the victorious army under General Bulow advanced toward Holland, and met there an English division under General Graham. On the 20th of November the two commanders called on the Dutch to join the cause of the allies. Two days before this, Count Hogendorp, a moderate Orangist, had privately collected in his house a number of the most distinguished persons, who, like himself, had formed part of the ministry from 1788 to 1795, and persuaded them to take upon themselves the provisional government, till the Prince of Orange, who was expected from England, should arrive.

A correspondence was opened with General Bulow, and with the allied monarchs, who had advanced to Frankfort; and invitations were addressed to the prince, who with little delay arrived at the Hague, and proceeded to Amsterdam amidst the rapturous acclamations of the assembled crowds. Proclamations had been circulated generally, headed, "The Netherlands are free, and William I. is the sovereign prince of this land of liberty." He however refused to assume any power till an assembly could be convened, which might properly be considered as a fair representation of the whole people. An assembly of notables, consisting of the most distinguished men of all parties and professions, was speedily called together. The number summoned was 600; of these, 125 declined attending, some on account of their age, others from ill health or personal reasons. With the dissent of only twenty-six voices, the prince was declared king, and a constitution decreed, which secured to him considerable power, limited, however, by two legislative assemblies.

When the French forces were compelled to abandon the ten ancient provinces of the house of Austria, these were considered as conquests made by the allied powers, who assumed the disposal of them. The congress of Vienna, of which Austria, the former sovereign of those provinces, was a member, resolved that they should be united with the seven provinces, and form together one independent kingdom, under a constitution, of which the princes of the house of Orange were to be hereditary monarchs. As an indemnification to the prince, now king, for the loss of his states in Germany, the duchy of Luxembourg, with the exception of the fortress, was given up to be added to this newly-constructed kingdom, and in it was included the ancient bishopric of Liège.

Before the complicated arrangements which the union of these parts required could be completed, the return of Bonaparte from Elba, and the revolt of the French army, created impediments to the settlement of internal affairs. But this newly-constructed kingdom, which was the first object of attack, entered with energy into the contest, and their troops, mustered as they had hastily been, took an honourable part, under the eldest son of the king, now Prince of Orange, in the grand events of that short but brilliant campaign of 1815, which ended in the decisive victory of Waterloo.

The consolidation of such heterogeneous bodies as the inhabitants of Belgium and those of Holland was a difficult task, owing to their differences of religion, of laws, of language, and of occupations. The Belgians were rigid Catholics, and their clergy strove to prevent the toleration of all other professions; their laws had all been founded on the system of the ancient Dukes of Burgundy, but altered to suit the Code Napoleon. The language spoken by the major part of the people, though it nearly resembled the Dutch, had considerably varied from it in the practice of two hundred years; and besides, a numerous portion of them spoke French almost exclusively, whilst another portion spoke the Walloon, and in Luxembourg the German language pre-

Holland. dominated. The Dutch were principally conversant in trade, in the fisheries, and in manufactures, whilst the Belgians were chiefly employed in agriculture.

The members of the legislative body contained nearly an equal division of the two countries; and as they acted rather with the feeling of delegates from the parts by which they were chosen, than as the representatives of the interests of the whole community, their decisions were subject to great fluctuations, according to the number of Dutch or of Belgian members who might happen, by sickness or by accident, to be prevented from being present when the votes on a particular proposition were taken. This inconvenience might have been removed by time, if other causes had not been in operation. The agriculturists wished to monopolise the whole supply of corn by means of a restrictive law; but the distillers, who used a great quantity of Baltic corn in making gin, and the speculative merchants in grain, who were a medium for supplying that commodity to a great extent from countries in which it was cheap, to countries in which it was dear, claimed a continuance of the free trade which they had long enjoyed. Though this point was finally settled in favour of the Dutch party, it caused a rankling feeling in the minds of the Belgians. The assemblies, besides their ordinary occupations, had their attention constantly directed to the composition of a system of law, applicable both to civil and to criminal cases, and had made great progress in the work. After much opposition to religious toleration, in which the king displayed both temper and firmness, a concordat was made with the pope, which, if not quite satisfactory, would, if left to itself, have probably removed all existing obstacles. The difference of language, though represented by those who availed themselves of every pretext to produce mischief, as of importance, was not in reality of very great moment. The Belgic and the Dutch are scarcely more dissimilar than the English and the Scotch, and one or the other was the language of a vast majority. All the books of any value were in the Dutch dialect, but they were neglected by the Belgians, of whom the few that could and did read drew their ideas from French publications. By directing all law proceedings to be carried on in the vernacular languages, a body of impetuous young men, imbued with French principles, were inflamed against the government, and gained more influence than they could have obtained if the exclusion of the French tongue from the courts had been gradually and not suddenly attempted.

In spite of these obstacles to a more perfect union, no country ever made so rapid a progress in prosperity as was exhibited in Belgium. The products of its soil, the iron and the coals of Liège and of Luxembourg, found most beneficial markets in Holland. The corn was, in spite of that imported from the north of Europe, sold at profitable rates. The trade with the Dutch colonies being opened to them, and the valuable port of Antwerp being no longer closed, Belgium made a great progress in foreign trade. The effect of this was to create new manufacturing establishments of cotton, woollen, and linen goods, and to extend those which had before existed. The advancement of the country was manifested to the most casual observer, and seen in the increase of private and public buildings, and in the improvement and embellishment of the old ones, in every city, town, and village.

The state of ease and improvement so striking in Belgium was, however, no security against the union of opposite factions, who agreed in nothing but in the work of inflaming the worst passions of the most ignorant part of the community, who, though highly bigoted to their religion, were made tools to overturn the government, by those who avowedly hated it.

The Parisian revolution of July 1830 quickly produced a similar one in Brussels. The events passed as rapidly as

Holland. in the former city. There were few or no troops, a negligent and inefficient police force, and no spirit amongst those who possessed property, to protect it against the plunderers. They prayed the king to send troops to protect them; but when these arrived, the inflamed Belgians, who were from policy mixed up in the same ranks with the Dutch, would not act, and they abandoned the city. The mob, thus triumphant, compelled the feebler but richer citizens to submit to their demagogue leaders. This produced a declaration of independence against the house of Orange.

In the mean time, the Dutch, who were not without causes of complaint of the greater favour shown to the Belgians than to themselves, were firm in their allegiance to the monarch, and wished for a separation of the two countries. This measure was proposed and discussed in the legislative assembly at the Hague, and ultimately, by a majority, but not a large one, determined upon.

Application was made by the king of the Netherlands, to the several powers who had at Vienna sanctioned the union, and guaranteed to him the possession of his throne. This led to discussions and negotiations, during which a monarch was elected by the Belgians. They wished one from the family of Napoleon, or that of Orleans, but were not allowed a free choice, and at length Prince Leopold of Saxe-Coburg was placed on the throne.

The Dutch soon composed an army, which, though inferior in number to that of Belgium, invaded the country. The Belgians displayed neither courage nor discipline, but fled in all directions; and their new king would, but for an accident, have been made prisoner. A division of the French army advanced to the aid of the Belgians, upon which the Dutch retired.

The citadel which commanded the city of Antwerp was still garrisoned by a Dutch force. It appeared proper to England and France that this should be given up to Leopold; and as the Dutch refused to surrender it till all other subjects of contest between the two countries were arranged, it was resolved to compel its surrender by warlike measures. The ports of Holland were blockaded, and the fortress of Antwerp was attacked by a French army, and, after a gallant defence, compelled to capitulate. The embargo was then taken off, and all hostilities ceased in 1833.

The king still retains his former title of king of the Netherlands, but as that will probably be finally changed for some other of a more definite nature, we here confine our statistical description to the country actually under his authority, the divisions, extent, and population of which are as follow:

Provinces.	Extent in Acres.	Population.	Cities.	Market Towns.	Villages.
North Brabant	1,283,200	349,289	16	11	143
Guelderland...	1,310,700	312,897	22	3	381
North Holland	573,300	417,458	14	4	212
South Holland	713,300	484,608	18	4	281
Zealand.....	415,600	137,194	20	2	308
Utrecht.....	341,250	131,835	6	1	107
Friesland.....	682,500	207,425	11	1	336
Overysse.....	827,000	180,495	16	3	198
Groningen.....	579,300	159,321	4	0	280
Drenthe.....	614,500	64,028	1	2	37
	7,340,600	2,444,550	128	31	2283

In this account the duchy of Luxembourg is omitted, as being at present the subject of negotiation between Belgium and Holland, in which are also intermingled the views of the powers who were parties to the treaty of Vienna, as well as those of the Germanic confederation.

Holland. That province extends over 2193 square miles, contains twenty-two cities and towns, and 809 villages, with 302,654 inhabitants. A part of it, however, comprehending the strong fortress of the same name, with a circle of four leagues around, will be continued in the hands of the German confederation, whether the remaining part should form a part of Holland or of Belgium.

The cities of Holland containing each more than 10,000 inhabitants, with their actual population, were in 1833 as in the statement subjoined.

Cities.	Population.	Cities.	Population.
Amsterdam.....	202,364	Hague.....	56,105
Rotterdam.....	72,294	Utrecht.....	43,407

Cities.	Population.	Cities.	Population.
Leyden.....	34,564	Middleburg.....	14,700
Groningen.....	30,260	Arnhem.....	14,509
Haarlem.....	21,667	Deventer.....	13,639
Leuwarden.....	20,938	Breda.....	13,114
Bois-le-Duc.....	20,489	Gouda.....	12,878
Dort.....	19,972	Amersfort.....	11,782
Nimeguen.....	17,734	Tilbourg.....	11,726
Zwolle.....	15,640	Scheidam.....	11,588
Delft.....	15,023	Zutphen.....	10,204

The proportion of the town population to that of the villages is far greater than is to be found in any other part of the world, as appears by the following table.

Comparison of the Town with the Rural Inhabitants of Holland.

Provinces.	Town Population.			Country Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
North Brabant...	35,399	35,550	70,946	137,791	140,151	277,942
Guelderland.....	39,807	42,668	82,475	115,502	111,816	227,318
North Holland....	125,282	150,656	275,941	68,882	69,165	138,047
South Holland....	116,211	137,101	253,312	112,956	113,466	226,425
Zealand.....	20,025	23,120	43,145	47,034	47,083	94,117
Utrecht.....	30,690	34,035	64,725	34,258	33,376	67,634
Friesland.....	25,084	28,229	53,313	75,867	75,659	151,526
Overysseel.....	18,552	19,609	38,161	71,921	68,813	140,734
Groningen.....	14,119	16,141	30,260	63,505	63,739	127,244
Drenthe.....	5,254	5,278	10,532	27,274	26,062	53,336
	430,423	492,387	922,810	754,990	749,330	1,504,320

It is worthy of remark, that whilst in the country inhabitants the males rather exceed the females, in the cities and towns the females exceed in number the males by nearly a fifteenth part.

Provinces.	Varieties of Religious Sects.				
	Protestants.	Catholics.	Jews.	Unknown Sects.	Total.
North Brabant....	41,840	305,446	1,476	129	348,891
Guelderland.....	188,319	118,003	2,748	723	309,793
North Holland....	274,211	114,705	24,117	955	413,988
South Holland....	353,852	117,364	7,596	925	479,737
Zealand.....	100,747	36,060	454	1	137,262
Utrecht.....	77,490	53,340	1,484	45	132,359
Friesland.....	184,787	18,543	1,555	24	204,909
Overysseel.....	117,131	59,362	2,231	171	178,895
Groningen.....	143,198	11,646	2,660	.....	157,504
Drenthe.....	60,173	2,451	1,172	72	63,868
	1,541,748	836,920	45,493	3,045	2,427,206

The several sects are maintained by the government, although some particular churches have endowments. The greater part of the Protestants are of the Calvinistic profession. The Lutherans are the next in number, the Menonites and the Remonstrants exceed 120,000, but the whole of the other Protestants taken together are not more than half the number of the Calvinists. By the budget of 1833 the sums voted for the support of the Protestant worship amounted to 1,330,000 florins (L.115,000), and for the Catholic worship 400,000 florins (L.33,400), besides the expense of the universities. There are now three universities, viz. Leyden with 684 students, Utrecht with 476, and Groningen with 284. These are indiscriminately resorted to by the different religious parties, whose separate theological studies are provided for by the state under professors of each faith.

The uncertain state of the external relations, and especially

of those with their late fellow subjects, has caused an augmentation of the forces both by land and by sea, far beyond what can be needed or supported for a long period. The regular land army, which is well organized and disciplined, consists of forty-eight battalions of infantry, twenty-three squadrons of cavalry, nine corps of riflemen, and a proportional force of artillery. Besides these troops, a numerous body of volunteers, called the Schuttery, are in a state of preparation to act in the defence of the country. The navy consists of eight ships of the line, two of eighty-four guns and six of seventy-four. The frigates are three of sixty guns, thirteen of forty-four guns, and seven of thirty-two guns. There are fourteen corvettes mounting from twenty to twenty-eight guns, and sixteen brigs from eight to eighteen guns, and several armed steam-vessels have been recently constructed. For the defence of the internal water frontier, there are about eighty large gun-boats or

Holland. barks armed, each of them having a twenty-four pound gun at their prow, two six pounders at the stern, and two carronades on the sides. This force is manned with 7000 good seamen, independently of officers, and is peculiarly appropriate for defence.

The finances of the kingdom are at present in a provisional state, owing to the indecisive negotiations which have been for several years under discussion, respecting the division of the national debt, which belonged to the two countries of Belgium and Holland when united as one kingdom. The plan decided on by the allied powers, and acquiesced in by both governments, was, that this debt should be divided into thirteen parts, of which seven should be assumed by Belgium and six by Holland. But as Belgium pays no part of the interest, the dividends have hitherto been regularly discharged by Holland. The credit of that government is good, and the wealth of its subjects abundant, and the king finds no difficulty whatever in availing himself of both during the uncertain period, which is still protracted. The expenses were thus estimated for the year 1833 :

Civil list.....	1,425,000 florins.
Secretaries of state.....	572,840
Department of foreign affairs.....	596,200
..... of the interior.....	3,103,309

Department of justice.....	1,150,000 florins.	Holland.
.....of worship.....	1,730,000	
Naval force.....	6,500,000	
Army.....	12,100,000	
National industry and colonies.....	587,016	
Interest on the debt.....	21,621,484	
	<hr/> 49,385,849	

As twelve florins are equal to a pound sterling, the whole ordinary expenditure consequently amounts to £4,115,480; but to this must be added 44,000,000 florins for extraordinary on account of warlike preparations. If tranquillity be restored, and Belgium should pay her proportion of the interest on the debt, the finances of this kingdom will be in a prosperous state. During the union, the Belgic portion paid taxes at the rate of ten florins per head on the whole population, whilst Holland paid rather more than fifteen florins per head. With only its due proportion of the debt, Holland would have a surplus revenue for its ordinary expenses, and might reduce annually a portion of its debt, especially as she has the whole of the colonial possessions, and the far greater proportion of the shipping, the fisheries, and the foreign trade.

The foreign possessions of Holland are the following :

	Whole Inhabitants.	Whites.	Free Coloured.	Slaves.
Asia.....				
{ Batavia.....	4,800,700	50,000	4,758,300	12,400
{ Amboyna.....	45,000	400	44,000	600
{ Banda.....	44,000	400	43,000	600
{ Ternate.....	170,000	300	169,500	200
{ Macassar.....	360,000	500	358,500	1000
{ Sumatra.....	1,040,000	500	1,038,500	1000
{ Timor.....	85,700	600	84,000	400
Africa.....				
Forts on the coast of Guinea, with only gar-				
risons.				
America.....				
{ Surinam.....	57,040	6,050	7,100	74,500
{ St Eustatia.....	13,710			
{ Curaçoa.....	12,350			
{ St Martin's.....	4,100			
{ Saba.....	450			

Besides these, the Dutch claim the islands of Oruba and Orubilla, that of Bonaire or Buenos Ayres, with the Bird Islands; all near the coast of the late Spanish settlements. They have few or no resident inhabitants, but a few persons occasionally repair to them to take turtles or to collect salt.

The government of Holland is a monarchy, hereditary in the house of Orange, and limited, by the constitution founded in August 1815, to the power of executing the laws. It was grounded on the ancient habits and usages, only making the executive power permanent, instead of occasional and temporary, as it was when a stadtholder was formerly appointed. The legislature is composed of two houses. The lower house has fifty-five members, none of whom can be less than forty years of age, and of these twenty-two are chosen by the provinces of North and South Holland, seven by North Brabant, six by Guelderland, five by Friesland, four each by Overijssel and Groningen, three each by Zealand and Utrecht, and one by Drenthe. The upper house consists of the nobles, appointed for life by the king.

As the greater part of the establishments of the country are permanent as well as ancient, and as the greater part of the revenue is voted every ten years in anticipation, the transactions of the chambers occupy but a short space

of time, nor do they create so great an interest as in countries where more business is brought under the notice of the popular assemblies. In this kingdom the far greater part of their internal affairs are settled in the provincial assemblies of the several states, and in corporate bodies of the larger cities; all of whom have considerable funds under their control, and exercise extensive power within their respective limits.

From the economical habits of all classes, of which the monarch is an eminent example, the expenses of the several public functionaries are fixed upon a very moderate scale. This habit of prudence and foresight has descended from the higher to all other classes of society, and has been the main cause of that great accumulation of wealth, which, from the foundation of its independence, and in spite of the severe reverses it has sustained, has made this kingdom so remarkable.

No observant traveller can pass through Holland without feeling surprise at the abundant wealth, and the profitable application of it to the obtaining of additional wealth, which is everywhere to be seen. This is manifested in the public and the private buildings, in the farming erections, in the boundaries of the land, in the dykes, the canals, the roads, the mills for keeping the fields clear of water, in the wheel carriages, and in the cattle, as well

Holland. in those applicable to labour, as in those kept for the dairy or for food. The same may be seen in what relates to their ships, boats, workshops, and the interior of the dwellings. All are distinguished by their cleanliness and order, which, the Dutch have by long experience known, are essential ingredients of economy.

During the twenty years from 1794 to 1814, when the country was subjected to France, when the foreign trade was annihilated, and the intercourse with the colonies was suspended, it has been estimated that more than one hundred millions sterling, beyond the expenses of government, were extorted from Holland by their acute masters. This is said to have been encountered by such rigid parsimony, practised by all individuals and families, that the actual capital of the country was little, if at all, impaired by the extortion it had endured. On the return of tranquillity, the capital thus reserved was in a great degree employed in loans to the several foreign states of Europe; which loans were made on terms so advantageous to the lenders, that, between 1814 and 1833, more gain has been made by the Dutch capitalists than had been taken from them in the preceding twenty years.

This traffic in money, of which Amsterdam may be considered as the central market for the whole of Europe, is not confined to the great capitalists, as in most other countries, but by various modes is so diffused over the community, that those who have but small reserve funds are enabled to partake of the advantages of it, and that whilst pursuing their regular and customary occupations.

With the return of peace the intercourse had been renewed with the colonies in the East Indies, and upon the coast of South America, which had been restored in an improved condition. This gave rise to a profitable commerce with the south-eastern part of Asia, and enabled the proprietors of estates in Surinam to realize their property. The transit trade, the fisheries, the commerce with the Baltic, and with the kingdoms of Spain and Portugal, and the ports of the Mediterranean, were all re-opened, and extended beyond their former limits. During the continuance of the union with Belgium that part of the kingdom shared these branches of profit, chiefly through the noble port of Antwerp. But the late revolutionary events have nearly thrown the whole of that commerce into the hands of the Dutch. As the most substantial of the merchants and the larger ship-owners have removed from Antwerp to Rotterdam or Amsterdam, it is probable that the trade of Holland, whatever may be the result of the pending negotiations, will be benefited by the separation of the two countries.

During the war, especially after the Berlin and Milan decrees, much of the inert capital of Holland was directed towards the improvement of the soil and cultivation, and its fruits in a few years vastly increased. Many of these now form an important portion of its export trade. Those here enumerated have been doubled in quantity in the ten years up to the time of the insurrection at Brussels; and the exports annually, on an average of three years ending with 1829, were as follow:—

Butter.....	7,924,778 pounds.
Cheese.....	16,383,217 ..
Oilcakes	15,024,579 ..
Oil from rape and linseed.....	019,260 hogsheds.
Salted meat.....	355,860 pounds.
Hams.....	136,312 ..
Hemp, rape, and linseed.....	196,800 bushels.

Another product of the soil, the export of which is of vast extent, but not very accurately ascertained, is gin, distilled from corn in the large establishments in the city of Scheidam, and some other places. It is not, however, the sole product of their own soil, as much of the corn from which it is made is previously imported from the Bal-

tic, and other northern ports of Europe. This corn trade was once a very extensive branch, but of late years, from causes too complicated to be explained here, it has been very much contracted, and the large storehouses of Amsterdam have been but slightly furnished with it.

The favourable situation for commerce in which Holland is placed, at the mouths of great rivers, besides the facilities for defence, has induced the construction of works which, though chiefly intended for protection, are beneficial as means of intercourse. The artificial canals are numerous and extensive, and have been constructed at an expense which only the general economy could have encountered. Without enumerating them, one of recent construction deserves especial notice. The ship canal from the Helder to Amsterdam, which was completed and opened in 1825, is about eighty miles in length, 120 feet broad, and twenty-five feet deep; thus capable of conveying into the capital the largest ship of war. It is an undertaking, both by its execution and its cost, worthy of the most flourishing period of the republic. The expense of the work has exceeded one million sterling.

During the union of Belgium with Holland, the former country had extended its manufacturing industry, and, from being more favourably situated, had prevented Holland from re-establishing those fabrics of woollen and linen goods which had flourished before the occupation of the country by the French. At present the manufactures of Holland are upon a narrow scale. Some linen, with a few woollen and cotton goods, are made, but chiefly for domestic consumption. A few articles of tapes and other small wares are made at Haarlem; and some linens are still bleached there, which are either made in the country, or imported in an unbleached state from Silesia. The business of refining sugar is carried on extensively in Amsterdam, and that of making snuff and tobacco gives occupation to numerous labourers. The making of gin has been already noticed, to which it may be added, that the breweries are large and numerous. The building of ships, barges, and boats, is now the chief branch of manufacturing industry; and in the beauty of their form, in their durability, and in their adaptation for stowage, the builders of Holland have of late years been making a rapid progress. The greatest deficiency in Holland is the want of occupation for common labourers; for although in the season of harvest there is not a sufficiency of hands for the work of the field, and thousands from Westphalia repair to it to gather in the crops, yet at other seasons the distress is very great, and in no country is there so much call for the practice of benevolence as in Holland, and nowhere such abundant exercise of that virtue.

The fisheries on their own coasts, as well as those on the shores of Great Britain, employ many seamen, as does the Greenland whale-fishery; but this is chiefly a summer labour, and that class of workmen feel much distress in the winter, especially whenever, as is a common occurrence, the canals are frozen, and cease to be navigable.

The agriculture of Holland is well conducted, with very productive results in the lower parts of the country. Wheat is but little cultivated, rye is more extensively so; but the most profitable grain is oats, of which alone more is exported than is imported. Barley is but little grown, and what is needed is chiefly supplied from Germany by the inland rivers. In the recently-cultivated poor lands in Groningen and Drenthe much buck-wheat is grown. Potatoes also are abundantly produced. The more beneficial products are those from the cattle, such as butter, cheese, bacon, and hams; and on the farms where they are maintained are raised the greater part of those seeds from which their oil is made.

The climate is moist, and the soil generally damp; and in winter, especially in Amsterdam and some other cities,

Holland. the fogs are extremely dense. These circumstances, combined with a scarcity of good water to drink, are considered as the causes of the increase of population being slower in Holland than in any other country of the European continent. The mode of living may have some effect on longevity: though the people are warmly clothed, yet the use of stoves, in which turf is burned, must be injurious in the manner there practised. The great quantity of cured fish, bacon, and butter, used as food, and the abundant drinking of ardent spirits, stimulated by the smoking and chewing of tobacco, must contribute in some degree to shorten the lives of the inhabitants.

The language of Holland is a dialect of the high German, derived from it when less improved than it has been within the last century. It first assumed a decided character in the latter end of the fifteenth century, and has from that time to the present been receiving additional polish from the literary labours of the several distinguished men who have cultivated it, from Agricola and Erasmus, down to the time of the lately deceased Bilderdyk. It would probably have been much further improved if some of its most distinguished authors, such as Erasmus, Lipsius, Grotius, Wyttenbach, and others, had not, for the sake of greater circulation, written in the Latin language. Though the Dutch prose has but little pretension to elegance in its tones and its expressions, it is well calculated to convey clear ideas, and to explain useful truths with great simplicity and accuracy.

In no country of Europe has the proportion of highly learned men to the whole population been so great as in Holland. The earliest impulse to literature was communicated by William the first Prince of Orange, who founded the University of Leyden in 1575, as a reward to that city for its brave defence against the Spaniards in the preceding year. Men like Scaliger, Lipsius, Heinsius, Gronovius, and Spanheim, in ancient learning; Erpenius and Gollius in oriental literature; Arminius, Drusius, and Coccejus, in theology; and the two Snelliuses, in mathematics, extended their own fame, and that of their university, throughout the whole of Europe. Soon afterwards, the high schools of Franeker, of Groningen, and of Utrecht, produced a rivalry highly advantageous to the diffusion of knowledge.

Towards the end of the seventeenth century, Huygens Leeuwenhoeck, Zwammerdam, and Hartseeker, were highly distinguished as astronomers and as natural historians. After the peace of Utrecht in 1713, Albert Schultens, Hemsterhuis, and the celebrated Boerhaave, with a long list of others, began to extend the study of the Greek and of the oriental languages, to improve their own, and more especially to diffuse a more correct knowledge of the healing art. The science of the law of nations, as well as of law in general, owes much to eminent Dutch writers; and nowhere has the research into antiquities been more assiduously pursued, or with greater success. The celebrity of Dutch literature invited able men from other countries, and their works published in Holland still further extended the renown of the Dutch schools. Thus Scaliger and Luzac were of French origin; Albinus, Vossius, Gronovius, Ruhnken, and Vorstius, were Germans; and Wyttenbach was a na-

tive of Switzerland. In history, in criticism, and in poetry, the Dutch were behind no other people; and, considering the paucity of readers of their language, their progress and excellence is astonishing. It would be easy to give a list of dramatic and other poetical authors of high merit, but whose talent cannot be appreciated beyond the limits of their own confined territory.

Amidst their fierce contests, and their eager desire of gain, the fine arts, especially painting, had numerous patrons in Holland, and produced artists who powerfully, but in a peculiar manner, rivalled those of Flanders and of Italy. The Dutch school of painting has been praised for the truth of its representation of natural objects, for its perfect finishing, its appropriate shading, and the colouring and delicacy of pencil; but it has been censured for its selection of unworthy objects, and want of correctness in drawing. The founder of the school was Lucas of Leyden, born in the year 1494. His most eminent followers were, Van Been of Leyden, born in 1586, said to have been an instructor of Rubens; Bloemart of Gorcum, who painted historical pieces, landscapes, and cattle, and died in 1647; Cornelius Poelenburg of Utrecht, born in 1586, and died in 1663, who was peculiarly happy in his landscapes with figures, and his two distinguished pupils Bertange and Haensberge; also Rembrandt, who, by his exquisite skill in colouring, was enabled to hide all his other faults. Without enumerating their peculiarities, and without extending the list, we insert the following names, most of which are well known to those who have paid any attention to the history of painting and painters. Zachtleben, Gerhard Terburg, Swanvelt, Asselyn, Gerhard Dow, Peter Van Leer, Wou- verman, Waterloo, Berghem, Paul Potter, Backhuysen, Mieris, Schalken, Jardin, Ruysdael, Van der Werf, and Van Hulst. To these, others of second-rate merit might be added. It is singular, that with their great skill in painting, the Dutch have made an indifferent figure in the sister art of statuary. In architectural taste also they have been deficient, but that has made some progress of late years, as may be observed in the buildings of more modern erection.

In the mechanical arts the Dutch have attained a high degree of perfection, as far as these are connected with their peculiar situation. In the conducting of water, and in the formation of dykes, bridges, sluices, and canals, their skill and contrivances to facilitate labour are obvious to all travellers who visit the country; and they excel all other nations in the construction of their mills, and in whatever pertains to the making of wheels, either for mills or for waggons and coaches. In such works, as indeed in all others, they exhibit the highest degree of neatness, strength, and economy.

The works chiefly referred to in this article are, *Histoire des Troubles des Pays-Bas*, par Vander Vynckt, 3 vols. edition 1822; *Analecta Belgica de Hoynck de Papendrecht*, 1743; *Histoire de la Guerre des Pays-Bas*, par Strada, 1604; *Geschichte des Abfalls der Nederlands von der Spanische Regeirung* von Schiller, edit. 1829; *Geographie Historique, Physique, et Statistique, du Royaume des Pays-Bas* (Amsterdam, 1827), par J. J. de Cloet; *Jaarbokje over 1831, 1832, 1833*, von Z. M. Koning in Gravenhage; *Almanach der 1834*, Weimar.

Holland,
New
Hollar.

HOLLAND, *Nzw*, the largest island in the world, reaching from 10° to 40° south latitude, and between 114° and 158° of east longitude from London. See the article **AUSTRALASIA** for a general account of this immense island; and the article **WALES**, *New South*, for an account of the British Penal Colony established in it.

HOLLAND, in commerce, a fine and close kind of linen, so called from its being first manufactured in Holland.

HOLLAR, **WENCESLAUS**, a celebrated engraver, born at Prague in 1607. His parents were respectable, and he was at first designed for the study of the law. But the civil commotions which happened in his youth having ruined his family affairs, he was obliged to shift for himself; and discovering some genius for the arts, he was placed with Marian, an able designer and engraver of views. Being himself a man of great ingenuity, he profited largely from the instruction of his tutor. He principally excelled in drawing geometrical and perspective views, and plans of buildings ancient and modern, also landscapes, and every kind of natural and artificial curiosities, which he executed with a pen, in a style well adapted to the purpose. He travelled through part of Germany; but notwithstanding his merit, he met with so little encouragement that he found it difficult to support himself. The Earl of Arundel being in Germany, took him under his protection, brought him to England, and recommended him to the favour of Charles I. He engraved a variety of plates from the Arundel collection, and the portrait of the earl himself upon horseback. The civil wars which broke out soon afterwards in England ruined his fortune. He was taken prisoner with some of the royal party, and escaped with difficulty; upon which he returned to Antwerp, and joined his old patron the Earl of Arundel. He settled in that city for a time, and published a considerable number of plates; but his patron having soon afterwards proceeded to Italy for the benefit of his health, Hollar fell again into distress, and was obliged to work for the printsellers and booksellers of Antwerp at very low prices. At the Restoration he returned to England, where, though he had sufficient employment, the prices he received for his engravings were so inadequate to the labour necessarily required, that he could barely procure a subsistence; and the plague, with the succeeding fire of London, having for some time put an effectual stop to business, his affairs were so much embarrassed that he was never afterwards able to improve his fortune. It is said that he used to work for the booksellers at the rate of fourpence an hour, and always had an hour-glass before him. But all his industry, to which his numerous works bear ample testimony, failed to procure him a sufficient maintenance. On the verge of his seventieth year he was attached with an execution at his lodgings in Gardener's Lane, Westminster, when he desired only the liberty of dying in his bed, and that he might not be removed to any other prison than the grave, a favour which it is uncertain whether or not he obtained. He died in 1677. According to Vertue's Catalogue, his works amount to nearly twenty-four thousand prints, and the lovers of art are always zealous to collect them. Generally speaking, they are etchings performed almost entirely with the point. Their merits are thus characterized by Mr Strutt: "They possess great spirit, with astonishing freedom and lightness, especially when we consider how highly he has finished some of them. His views of abbeyes, churches, ruins, &c. with his shells, muffs, and every species of still life, are admirable; his landscapes frequently have great merit; and his distant views of towns and cities are not only executed in a very accurate, but a very pleasing manner." But a somewhat colder character is given of them by Mr Gilpin in his essay on prints: "Hollar gives us views of particular places, which he copies with great truth, unornamented, as he found them. If

we are satisfied with exact representations, we have them nowhere better than in Hollar's works; but if we expect pictures, we must seek them elsewhere. Hollar was an antiquarian and a draughtsman, but seems to have been but little acquainted with the principles of painting. Stiffness is his characteristic, and a painful exactness void of taste. His larger views are mere plans. In some of his smaller, at the expense of infinite pains, something of an effect is sometimes produced. But in general we consider him as a repository of curiosities, a record of antiquated dresses, abolished ceremonies, and edifices now in ruins."

HOLLOA, in nautical language, an exclamation of answer, to any person who calls to another to ask some question, or to give a particular order. It is also the answer in hailing a ship at a distance.

HOLM (Saxon, *HULMUS*, *insula amnica*), denotes an isle or fenny ground, according to Bede, or a river island. And where any place is called by that name, and this syllable is joined with any other in the names of places, it signifies a place surrounded with water, as the Flatholmes and Stepholmes in the Severn near Bristol; but if the situation of the place be not near the water, it may then signify a hilly place, *holm* in Saxon signifying also a hill or cliff.

HOLMS, two islands in the Bristol Channel, distinguished by the appellation of the flat and the steep, which form part of the Welsh county of Glamorgan. On the former is a light-house, and a dwelling for those who superintend the lights, and a few other houses, with about fifty acres of cultivated land. The latter is a rock about 400 feet in height, with a difficult and dangerous access. The soil is sandy, and the vegetation confined, and only fit for rabbits, of whom great numbers are found there.

HOLOCAUST (formed from *ἅλος*, *whole*, and *καυσ*, *to consume with fire*), a kind of sacrifice, in which the whole offering is burned or consumed by fire, as an acknowledgment that God, the creator, preserver, and lord of all, was worthy of all honour and worship, and as a token of men's giving themselves entirely up to him. It is also called in Scripture a *burnt-offering*. Sacrifices of this sort are often mentioned by the heathens as well as Jews (Xenophon, *Cyropæd.* lib. viii. p. 446, 1738), and they appear to have been in use long before the institution of the other Jewish sacrifices by the law of Moses (Job, i. 5, xli. 8; and Gen. viii. 20, xxii. 13). On this account the Jews, who would not allow the Gentiles to offer on their altar any sacrifices peculiarly enjoined by the law of Moses, permitted them by means of the Jewish priests to offer holocausts, because these were a sort of sacrifices prior to the law, and common to all nations. During their subjection to the Romans it was no uncommon thing for the Gentiles to offer sacrifices to the God of Israel at Jerusalem. Holocausts were deemed by the Jews the most excellent of all their sacrifices. It is said that this kind of sacrifice was in common use amongst the heathens, till Prometheus introduced the custom of burning only a part, and reserving the remainder for his own use.

HOLOFERNES, lieutenant-general of the armies of Nebuchadonozor, king of Assyria, who having in a remarkable encounter overcome Arphaxad, king of the Medes, sent to all the neighbouring nations with an intention of obliging them to submit to his empire, pretending that there was no power capable of resisting him. At the same time Holofernes, at the head of a powerful army, passed the Euphrates, entered Cilicia and Syria, and subdued almost all the people of these provinces.

Being resolved to make a conquest of Egypt, he advanced towards Judæa, little expecting to meet with any resistance from the Jews. In the mean time, he was informed that they were preparing to oppose him; and

Holloa
Holofernes.

Hologra-
phum
||
Holstein.

Achior, the commander of the Ammonites, who had already submitted to Holofernes, and joined his army with some auxiliary troops, represented to him that the Hebrews were a people protected in a particular manner by Almighty God, as long as they were obedient to him; and therefore that he should not flatter himself with expectations of overcoming them, unless they had committed some offence against God, and thereby become unworthy of his protection. Holofernes, disregarding this advice, commanded Achior to be conveyed within sight of the walls of Bethulia, tied to a tree, and left there; but the Jews came thither and unbound him.

In the mean time Holofernes formed the siege of Bethulia; and having cut off the water which supplied the city, and set guards at the only fountain which the besieged had near the walls, the inhabitants were soon reduced to extremity, and resolved to surrender if God did not send them succour in five days. Judith, informed of their resolution, conceived the design of killing Holofernes in his tent. She took her finest clothes, went out of Bethulia with her maid-servant, and being brought to the general, pretended that she could no longer endure the sins and excesses of the Jews, and that God had inspired her with the design of surrendering herself to him. As soon as Holofernes saw her, he was taken with her beauty, and some days afterwards invited her to a great feast which he had prepared for the principal officers of his army. But he drank so much wine, that drunkenness, and its immediate consequence, sleep, prevented him from satisfying his passion. Judith, who in the night was left alone in his tent, cut off his head with his own sword, and departing with her servant from the camp, returned to Bethulia with the head of Holofernes. As soon as it was day, the besieged made a sally upon their enemies, who going into their general's tent, found his headless carcass besmeared with its own blood. They then discerned that Judith had deceived them, and fled with precipitation, leaving the camp abounding with rich spoils. The Jews pursued them, killed a great number, and returned loaded with booty.

There is a considerable diversity of opinion as to the time when this war between Holofernes and the Jews happened. Some date it from the captivity of Babylon, in the reign of Manassch, and pontificate of Eliakim the high priest; others place it some time after the captivity; and some doubt the truth of the whole transaction.

HOLOGRAPHUM (composed of *ὅλος*, *all*, and *γραφω*, *I write*), in the civil law, something written wholly in the hand-writing of the person who signs it. The word is chiefly used in speaking of a testament written wholly in the testator's own hand.

HOLSTEIN, a province of the kingdom of Denmark, one of those by which the king becomes a member of the Germanic confederacy. It was an ancient duchy, and the termination of the ancient German empire, from the year 811 till its dissolution. It is bounded on the north by Sleswick, from which it is separated by the river Eider and the Sleswick Canal; on the north-east and east by the Baltic Sea; on the south-east by the territory of Lubeck and the duchy of Lauenburg; on the south by the Elbe and the state of Hamburg; and on the west by the German Ocean. The province extends over 3260 square miles, and comprehends fourteen cities, twenty-two market-towns, 141 parishes, with 486 villages, and 374,750 inhabitants. The population are of the Saxon race, and speak the common platt Deutch, but the educated portion of the people speak the German language; their speech, as well as their manners and customs, seem to have borrowed little from the Danes, though they have for many centuries been a part of the same kingdom.

The soil is upon the whole fruitful; for though, in the centre of the province, there is a long strip of poor sand,

scarcely worth cultivation, yet on both sides the land is highly productive. The western side, especially near the shore, consists of some of the best meadow-land in Europe, on which are fattened those fine oxen the meat of which is known by the name Hamburg beef, and much of it is exported from that city, as well as from Altona. When, in the course of husbandry, these lands are broken up, they produce abundant crops of oats, and some very tolerable wheat. On the eastern side, upon the Baltic, is much excellent arable land, and tolerably well managed, yielding the best of butter, with some wheat and barley; but the principal corn grown is rye. It may be said of Holstein, that it is the best agricultural district in the north of Germany. The climate is, however, cold, raw, and changeable, which is injurious to its rural husbandry.

The trade of the province is considerable. On every part of the coasts of both seas the fisheries afford much occupation. The number of ships belonging to the several ports of Altona, Kiel, Flensburg, and Gluckstadt, creates and employs many most valuable seamen. The chief trade consists of the export of corn, butter, cheese, bacon, cured fish, rape-seed, honey, and wax. The Greenland fishery is carried on from Altona. The import trade chiefly arises from the Danish colonies in the West Indies, the produce of which is brought to Altona or Flensburg.

The manufactures are of small amount, excepting that of building and equipping ships. There are some small establishments for making paper, cutlery, copper articles, and common ironmongery. The shores of the Baltic present very picturesque scenes, from the deep indentations of the sea (called *fiorde*) into the land, where they spread out and resemble lakes, and are bordered by woods rising gradually to the tops of the hills. From the eastern side of this country, in the district of Engeland, according to tradition, Hengist and Horsa, two of the princes, sailed on their expedition to our island.

HOLT, SIR JOHN, Lord Chief-Justice of the Court of King's Bench in the reign of King William, eldest son of Sir Thomas Holt, serjeant-at-law, was born at Thame, Oxfordshire, in 1642. He entered himself at Gray's Inn in 1658, and applied to the common law with so much industry that he soon became an eminent barrister. In the reign of James II. he was made recorder of London, an office which he discharged with much approbation for about a year and a half; but he lost his place by refusing to expound the law suitably to the king's designs. On the arrival of the Prince of Orange he was chosen a member of the Convention Parliament, which afforded an opportunity of displaying his abilities; and as soon as the government was settled, he was made Lord Chief Justice of the Court of King's Bench and a privy counsellor. In 1700, when Lord Somers resigned the great seal, King William pressed Chief-Justice Holt to accept of it; but he replied that he never had in his life but one chancery cause, which he lost, and that consequently he could not think himself qualified for so great a trust. He continued as chief justice for twenty-two years, during which time he obtained great reputation for steadiness, integrity, and thorough knowledge in his profession. Upon great occasions he asserted the law with intrepidity, though he thereby ventured to incur by turns the indignation of both houses of parliament. Holt was a perfect master of the common law, and as his judgment was sound, his capacity great, and his understanding clear, so he possessed a firmness of mind, and a vigour of resolution, which nothing could overcome when he found himself called upon to assert the authority of the law, and to vindicate the purity of justice. Several causes of the utmost importance, as affecting the lives, rights, liberties, and property of the people, came in judgment before him, and his decisions were all marked by the same high qualities. His defini-

Holt

Holt
Holy
Island.

tions were remarkable for clearness and perspicuity; his arguments displayed equal powers of analysis and arrangement; and he possessed the invaluable faculty of rendering perceptible and obvious the natural differences of things, at the same time that he discriminated, with the nicest tact, between real and fanciful resemblances. His great secret consisted in the rigid and scrupulous adjustment of his premises; and hence he seldom erred in his conclusions. His arguments were instructive and convincing, whilst his integrity shrunk from any accommodation of judicial opinion to existing interests or prejudices. His decisions are, most of them, faithfully and judiciously reported by Chief-Justice Raymond, himself an eminent lawyer; and his integrity and uprightness as a judge are celebrated by the author of the *Tatler* (No. 14), under the character of Verus the magistrate. The following reports were published by him, in 1708, folio, with notes: "A Report of divers Cases in Pleas of the Crown, adjudged and determined in the reign of King Charles II. with directions for justices of the peace and others, collected by Sir John Keyling, knight, Lord Chief Justice of the Court of King's Bench, from the original manuscript under his hand; to which is added, the Report of three modern cases, viz. Armstrong and Lisle, the King and Plumer, the Queen and Mawgridge." A pretended second edition appeared in 1739, but the title only was new.

HOLT (Saxon), a wood, by which the names of towns beginning or ending with *holt*, as Buck-holt, denote that formerly there was plenty of wood in those places.

HOLT, lately a village, now a town, in Wiltshire, in the hundred of Bradford. It has grown up rapidly from opening a mineral spring of slightly sulphureous water, which, with the establishment of suitable accommodations, has attracted many scrofulous patients. It is a chapelry within the parish of Bradford. The inhabitants amounted in 1811 to 1812, in 1821 to 2415, and in 1831 to 2519.

HOLT, a pleasant market-town in the county of Norfolk, giving its name to the hundred in which it is situated. It is 121 miles from London, has a good market on Saturday, and an endowed grammar-school for thirty boys under the patronage of the fishmongers' company of London, who present from it to a fellowship and scholarship at Sydney College, Cambridge. The inhabitants amounted in 1801 to 1004, in 1811 to 1037, in 1821 to 1348, and in 1831 to 1622.

HOLY GHOST, one of the persons of the Holy Trinity. See **TRINITY**.

HOLYHEAD, a sea-port town in the island of Anglesey, in North Wales. It is situated on a peninsula at the western side of the island, and of late some great improvements have been made on the harbour, on one side of which is a light-house, on Salt Island, and another to the north-east, giving additional guidance to vessels in the night time. There is a good market on Saturday, and an ample supply of fish when the weather is favourable for taking them. The trade of the place depends chiefly on this being the greatest point of intercourse between England and Ireland, and it has been greatly advanced by the magnificent roads through North Wales, and the finishing of the suspension bridge over the Menai passage. The mails from the capital and from the northern counties arrive every morning at an early hour, and the letters and passengers are embarked immediately in steam-boats, which reach Dublin, in favourable weather, in eight hours. The inhabitants amounted in 1801 to 2132, in 1811 to 3005, in 1821 to 4071, and in 1831 to 4282.

HOLY ISLAND, a small island situated on the coast of England, ten miles south-east of Berwick, in Northumberland. Bede calls it a semi-island, being, as he observes, twice island and twice continent in one day; for at the flowing of the tide it is encompassed by water, and at the

ebb there is a passage almost dry both for horses and carriages to and from the mainland, from which, if measured on a straight line, it is distant about two miles eastward, though, on account of some quicksands, passengers are obliged to make so many detours, that the length of the way is nearly doubled. The water over these flats is at spring-tides only seven feet deep. This island was called by the Britons *Inis Medicante*, and also *Landisfarne*, from the small rivulet of Lindi or Landia, which here runs into the sea, and the Celtic word *fahren*, or recess; but, on account of its being the habitation of some of the first monks in this country, it afterwards obtained its present name of *Holy Island*. It measures from east to west about two miles and a quarter, but its breadth from north to south is scarcely a mile and a half. Holy Island, though really part of Northumberland, belongs to Durham; and all civil disputes must be determined by the justices of that county.

HOLY-Rood Day, a festival observed by the Roman Catholics in memory of the exaltation of our Saviour's cross. See **CROSS** and **EXALTATION**.

HOLYWELL, a considerable town in the hundred of Mold, of the county of Flint, in North Wales, 207 miles from London. It derives its name from a spring to which numerous pilgrimages were formerly made, and which is still visited by some devout Catholics, who pay their devotions at the place once filled by the image of the patroness, St Winifred. The spring yields a regular and prodigious supply of water; according to one experiment, a hundred tons in a minute. Doubts are entertained of the accuracy of this experiment; but it certainly turns a mill close to the well. In the vicinity of this town are valuable mines of lead, calamine, and copper; and within it are appropriate establishments for rendering these minerals available to the purposes of subsequent manufactures. There are also cotton spinning-mills established upon the stream which issues from the well, between its source and its falling into the Dee. The cotton twist spun at Holywell has a great reputation from its singular evenness. The town is finely situated, the air pure, and the market on Friday well supplied. There is a modern-built parish-church, and four places of worship for Catholic and Protestant dissenters. The population amounted in 1801 to 5567, in 1811 to 6394, in 1821 to 8309, and in 1831 to 8969. Long. 3. 13. W. Lat. 53. 16. N.

HOLZMINDEN, a city of the duchy of Brunswick, in Germany, the capital of the circle of the same name. It stands on the river Weser, and has on its banks excellent quays for landing and shipping goods. It is a well-built town, with a spacious market-place, two churches, a public school moderately endowed, and a good library. It contains 420 houses, and 3600 inhabitants, who are employed in trading on the river, and in various manufactures, especially in iron and steel works, in distilleries, breweries, and tanneries. Long. 9. 9. 55. E. Lat. 51. 50. 6. N.

HOMBERG, WILLIAM, a celebrated chemist, born at Batavia on the 8th of January 1652, was the son of a Saxon gentleman employed in the service of the Dutch East India Company. His father intended him for the army, but having afterwards settled at Amsterdam, William prosecuted his studies at that place, whence he removed to Iena, and afterwards to Leipsig, where he studied the law. In 1674 he was received as advocate at Magdeburg, which had been indebted for a new species of celebrity to the physical experiments of Otto Guericke, and there applied himself to the study of experimental philosophy. Some time afterwards he travelled into Italy, and at Padua applied himself to the study of medicine, anatomy, and botany. He afterwards studied at Bologna; and at Rome he learned optics, painting, sculpture, and music. He then travelled into France, England, and Holland;

Holy-Rood
Day
Homburg.

Homburg took the degree of doctor of physic at Wirtemberg; visited Germany and the North; explored the mines of Saxony, Bohemia, Hungary, and Sweden; and returned to France, where he acquired the esteem of the learned. He was on the point of returning into Germany, when Colbert being informed of his merit, made him advantageous offers, which induced him to fix his residence at Paris. But soon afterwards he lost his protector, and also incurred the odium of returning into the bosom of the Roman Catholic church; and this double misfortune was the more sensibly felt that he had never dreamed of securing for himself any independent means of subsistence. Homburg, already well known for his phosphorus, for a pneumatic machine of his own invention more perfect than that of Guericke, for his microscopes, for his discoveries in chemistry, and for the number and variety of his curious observations, was received into the Academy of Sciences in 1691, and had committed to him the laboratory of that body, of which he was one of the principal ornaments. The Duke of Orleans, afterwards regent of the kingdom, at length made him his chemist, settled upon him a pension, gave him a superb laboratory, and in 1704 made him his first physician. Homburg, having lived for thirty-three years in the Catholic faith, died in 1715. His principal works are, 1. *Manière de faire le Phosphore brûlant* de Kunckel, 1692; 2. *Diverses Expériences du Phosphore*; 3. *Réflexions sur l'expérience des Larmes de Verre qui se brisent dans le Vide*; 4. *Expériences sur la Germination des Plantes*, 1693; 5. *Essais de Chimie*, 1702, 1705, 1709; 6. *Observations faites par le Miroir ardent*, 1702; 7. *Analyse du Sulfre commun*, 1703; 8. *Découverte d'une liqueur qui dissout le Verre*, 1703; 9. *Observations sur les Araignées*, 1707; 10. *Mémoires touchant les Végétations artificielles*, 1710; 11. *Manière de copier sur le Verre coloré les Pierres gravées*, 1712; 12. *Observations sur une séparation de l'Or d'avec l'Argent, par la fonte*, 1713; 13. *Tracts on different metallic vegetations, on the generation of iron, and on the vitrification of gold*. Homburg had occupied himself much with metals, and was not far from believing in the philosopher's stone.

HOMBERG, a city of Hesse-Cassel, in the province of Lower Hesse, the capital of a bailiwick of the same name. It is walled, and stands on the river Efze, containing 354 houses, and 3050 inhabitants, who have considerable trade in linen weaving, in tanning, and iron, both wrought and cast.

HOMBURG, a market-town of France, in the department of the Moselle, and arrondissement of Sarguemines. It contains 380 houses, and 1620 inhabitants.

HOME, HENRY, Lord Kames, an eminent Scottish lawyer, and author of many celebrated works on various subjects, was descended of an ancient family, and born in Berwickshire in the year 1696. In his early youth he was lively, and eager in the acquisition of knowledge. He never attended a public school, but was instructed in the ancient and modern languages, as well as in several branches of mathematics, and the arts necessarily connected with that science, by Mr Wingate, a man of considerable parts and learning, who spent many years as preceptor or private tutor to young Home.

After studying at the university of Edinburgh, the civil law, and the municipal jurisprudence of his own country, Mr Home early perceived that a knowledge of these alone was not sufficient to form an accomplished lawyer. An acquaintance with the forms and practical business of courts, and especially of the supreme court, as a member of which he was to seek for fame and emolument, he considered as essentially necessary to qualify him to become a finished barrister. He accordingly attended for some time the chamber of a writer to the signet, where he had an opportunity of learning the styles of legal deeds, and the modes of con-

ducting different species of business. This wise step, independently of his great genius and unwearied application, procured him, after his admission to the bar, peculiar respect from the court, and proportional employment in his profession of advocate. These qualifications, together with the strength and vivacity of his natural abilities, soon rendered him an ornament of the Scottish bar; and, on the 2d day of February 1752, he was advanced to the bench as one of the judges of the Court of Session, under the assumed title of Lord Kames. Home.

Before this period, however, notwithstanding the unavoidable labours of his profession, Mr Home had favoured the world with several useful and ingenious works. In the year 1728 he published *Remarkable Decisions of the Court of Session from 1716 to 1728*, in one volume folio. In 1732 appeared *Essays upon several subjects in law, viz. Jus tertii, Beneficium cedendarum Actionum, Vinco Vincem, and Prescription*, in one volume 8vo. The first produce of his genius excited not only the attention, but the admiration of the judges, and of all the other members of the College of Justice. This work was succeeded, in the year 1741, by *Decisions of the Court of Session from its first institution to the year 1740*, abridged and digested under proper heads, in the form of a Dictionary, in two volumes folio; a very laborious work, and of the greatest utility to every practical lawyer. In 1747 appeared *Essays upon several subjects concerning British antiquities, viz. 1. Introduction of the Feudal Law into Scotland; 2. Constitution of Parliament; 3. Honour, Dignity; and, 4. Succession or Descent, with an appendix upon hereditary and indefeasible right*, composed in 1745, and published 1747, one vol. 8vo. Though not in the order of time, we shall continue the list of all our author's writings on law, before we proceed to his productions on other subjects. In 1757, he published the *Statute Law of Scotland Abridged*, with historical notes, in one volume 8vo; a most useful and laborious work. In the year 1759, he presented to the public a new and very interesting work under the title of *Historical Law Tracts*, in two volumes 8vo. In 1760, he published, in one volume folio, the *Principles of Equity*; a work which shows both the fertility of the author's genius and his indefatigable application. In 1766, he gave to the public another volume in folio of *Remarkable Decisions of the Court of Session from 1730 to 1752*. In 1777, appeared his *Elucidations respecting the Common and Statute Law of Scotland*, in one volume 8vo. This book contains many curious and interesting remarks upon some intricate and dubious points which occur in the law of Scotland. In 1780, he published a volume in folio of *Select Decisions of the Court of Session from 1752 to 1768*.

But Lord Kames's mind was much inclined to metaphysical disquisitions. When a young man, he had corresponded with Berkeley bishop of Cloyne, Dr Butler bishop of Durham, Dr Samuel Clarke, and many other ingenious and learned men both in Britain and Ireland. The year 1751 gave birth to the first fruits of his lordship's metaphysical studies, in an octavo volume, published under the title of *Essays on the Principles of Morality and Natural Religion*. It contained, in more explicit terms than perhaps any other work of a religious theist then known in Scotland, a statement of the doctrine of philosophical necessity, than which it is scarcely possible to conceive any more irrational and unphilosophical, or more essentially adverse to the best interests of morality and religion. Lord Kames continued an advocate of this doctrine until the day of his death; but in a subsequent edition of the *Essays*, he exhibited a remarkable proof of his candour and liberality of sentiment, by altering some expressions, which, contrary to his intention, had given offence. In 1761, he published an *Introduction to the Art of Thinking*, in one volume 12mo. This small book was originally intended for the instruction of his

Home. own family. His *Elements of Criticism* appeared in 1762, in three volumes 8vo. This valuable work was intended to show that the art of criticism is founded on the principles of human nature. Before it was published, Rollin's book on the belles-lettres, a dull performance, from which a student could derive little advantage, was generally recommended; but after the *Elements of Criticism* appeared, the work of Rollin lost its hold of the public.

A further proof of the various pursuits of this active mind was given in the year 1772, when his lordship published a work in one volume 8vo, under the title of *The Gentleman Farmer*, being an attempt to improve Agriculture by subjecting it to the Test of Rational Principles. In the year 1773, he favoured the world with *Sketches of the History of Man*, in two vols. 4to. These sketches contain much useful information, and, like all his lordship's performances, are lively and entertaining. They were republished in four vols. 8vo.

We now come to Lord Kames's last work, to which he modestly gives the title of *Loose Hints upon Education*, chiefly concerning the cultivation of the heart. It was published in the year 1781, in one volume 8vo, when the venerable author was in the eighty-fifth year of his age. Though his lordship chose to call it *Loose Hints*, the intelligent reader will perceive in this composition an uncommon activity of mind, at an age so far advanced beyond the usual period of human life, and an earnest desire to form the minds of youth to honour, virtue, industry, and a veneration of the Deity.

Besides the books which we have enumerated, Lord Kames published many temporary and fugitive pieces in different periodical works. In the *Essays Physical and Literary*, published by a society of gentlemen in Edinburgh, we find compositions of his lordship on the *Laws of Motion*, on the *Advantages of Shallow Ploughing*, and on *Evaporation*, all exhibiting evident marks of original thinking.

Lord Kames was as remarkable for public spirit as for mental activity and great exertion. For a long tract of time he had the principal management of all the societies and boards for promoting the trade, fisheries, and manufactures in Scotland; and, as conducive to those ends, he was a strenuous advocate for making and repairing turnpike roads throughout every part of the country. He was in some measure the parent of what was called the *Physical and Literary Society*, which was afterwards incorporated into the *Royal Society of Edinburgh*. From what has been said concerning the various productions of his genius, it is obvious that there could be few idle moments in his protracted life. His mind, either teeming with new ideas, or pursuing active and laborious occupations, found incessant employment. In his temper he was naturally warm, though kind and affectionate. In the friendships he formed he was ardent, zealous, and sincere. So far from being inclined to irreligion, as some ignorant bigots insinuated, few men possessed a more devout habit of thought. A constant sense of the presence of the Deity, and a veneration for Providence, dwelt upon his mind. From this source arose that propensity which appears in all his writings, of investigating final causes, and tracing the wisdom of the Supreme Author of nature. Lord Kames died on the 27th of December 1782. As he had no marked disease, but the debility necessarily resulting from extreme old age, a few days before his death he went to the Court of Session, addressed all the judges separately, told them he was speedily to depart, and took a solemn and an affectionate farewell. A full account of his Life and Writings, including much of the *Literary History of Scotland*, was published by the late Lord Woodhouselee, in two vols. 4to, 1807.

HOME, JOHN, a Scottish dramatic writer of great celebrity, was born at Leith, on the 13th of September 1722. His father, Mr Alexander Home, was town-clerk of that

place, and his mother was a daughter of Mr John Hay, a writer, or solicitor, in Edinburgh. He acquired the elementary branches of his classical education under Mr Hugh Millar, master of the grammar-school of Leith, and entered the University of Edinburgh in 1735, where he soon contracted an intimacy with William Robertson, William Wilkie, Alexander Carlyle, Hugh Blair, John Blair, Sir Gilbert Elliot, Sir John Dalrymple, and several others, afterwards well known in the literary world. After having attended the humanity class taught by Mr Kerr, one of the best Latin scholars of the age; mathematics, taught by the celebrated Maclaurin; logic, taught by Dr Stevenson, who contributed more than any other man in Scotland to inspire the young men of that period with a taste for good writing and rational investigation; he proceeded to the study of moral and natural philosophy, under Sir John Pringle and Sir Robert Stewart, and then passed through the usual routine of theological instruction. He was licensed by the presbytery of Edinburgh as a preacher of the gospel, on the 4th of April 1745.

Before he had enjoyed many opportunities of exercising this peaceful function, Scotland became the scene of a civil war; and the ardour of his mind, imbued as it was with a love of enterprise, and a boundless admiration of military glory, prompted him, on the first news of the approach of the rebel army, to join an armed association, formed by the inhabitants of Edinburgh, for the defence of the city. On the 9th of September 1745, he was enrolled in the *College Company of Volunteers*, a corps which was dissolved within a week, when the city was taken possession of by the Pretender's troops. But Mr Home and a few other spirited young men again formed themselves into a more select and efficient company, in the month of November, and subsequently obtained permission from General Hawley to serve in the field. Of this company Dr William McGhie was chosen captain, and Mr Home lieutenant. He had the command of the company on the 17th of January 1746, at the battle of Falkirk, where, having received no orders to act, he was an indignant witness of the disgraceful rout of the royal forces, which had fought so well at Dettingen and Fontenoy; and having been one of the last to retreat, he was taken prisoner, with five of his company. They were sent to the Castle of Doun, in Perthshire, on the 25th of January; but Mr Home, with some of his fellow prisoners, escaped on the 31st, by twisting their blankets into ropes, and dropping from the battlements, a height of seventy feet. At this time Mr Home was not less remarkable for the elegance and symmetry of his person, than for his engaging and prepossessing address. His appearance bespoke great vivacity, activity, and energy; his conversation was not merely cheerful, but uncommonly sprightly and animated; and the unceasing kindness which beamed from his countenance, and marked every action of his life, was such as to render him an universal favourite.

In the course of the year 1746, after the death of Mr Robert Blair, minister of Athelstaneford, and author of the well-known poem entitled *The Grave*, Mr Home obtained the presentation to the living, by the interest of Alexander Home of Eccles, afterwards solicitor-general. He was ordained to the charge of the parish in February 1747, and proved very acceptable to the parishioners. During a considerable part of his incumbency, he gave the use of his manse to Mr Hepburn of Keith, a gentleman who had been engaged in both the rebellions in 1715 and 1745, and whose insinuating manners and enticing conversation in some measure reconciled Mr Home to the character of the Jacobites. He boarded himself in the house of a grazier or butcher in the village, at the moderate rate of £12 a year; but as he passed a great part of his time amongst his numerous friends in the neighbourhood, it is believed that his host was not inadequately remunerated. Mr Home was fre-

Home.

Home. quently absent from his lodgings from Monday morning till Saturday night, and though he wrote a considerable number of discourses for the pulpit, he seldom left himself time to finish any one of them. After writing about two thirds of a sermon and committing it to memory, he generally trusted for the remainder to the moment of delivery. These unpremeditated perorations, occasionally eloquent, were delivered with more than his usual vehemence of action, and are said to have been not a little admired by his rustic audience.

Amongst the most intimate friends of Mr Home at this time were Lord Elibank, then residing at Ballancriff, Dr Robertson, then minister of Gladsmuir, Dr Carlyle of Inveresk, and Mr George Logan of Ormiston, a young clergyman of great promise, who died soon after having been induced, by the solicitation of his ablest contemporaries, to undertake the refutation of David Hume's sceptical writings.

From his earliest years Mr Home had been a passionate admirer of the tragic muse, and about the time of his establishment in the church it was known to his familiar friends that he was engaged in the composition of a tragedy founded on the account of the death of Agis, as given in Plutarch's *Lives*. The play, when completed, was highly approved by his friends Blair, Carlyle, and George Logan.

In 1749, he went with this play to London, having obtained strong recommendations to the attention of several leaders of the republic of letters; but his reception was very discouraging, except amongst his own countrymen. Some objected to the bloodiness of the catastrophe, and to the irregular sequence of the scenes; others to the Scotisms or vulgarisms of the style. Lord Lyttleton was then reputed the chief arbiter of taste; but no importunity could prevail upon him to read the play, because he did not like to express disapprobation, and if he happened to be pleased, he did not wish to have the trouble of supporting it, as he had lately found almost insuperable difficulty in carrying through one of Thomson's tragedies which he had warmly patronised. One Englishman of some note remarked, that the author had formed himself too much on Thomson's *Seasons* and Lee's *Plays*. "I could not have been more surprised," said Mr Home to a correspondent, "if he had told me that I had formed myself upon Euclid's *Elements* and Maclaurin's *Fluxions*." He had not a very exalted opinion of the English intellect. "I sometimes hearken to the coffee-house conversations upon poetry and politics, where there are such fellows authors, whose wigs are worth L.3 sterling, that it is ready to make a man of moderate patience *curse his better angel from his side, and fall to reprobation*." When Garrick refused to bring the play upon the stage, the author, after giving vent to his mortified feelings in an address to the shade of Shakspeare, composed in Westminster Abbey, returned to Scotland, and resumed the labours of his pastoral office, not without devoting a large share of his time to the society of his literary acquaintance, and to the pursuit of his favourite study.

He continued assiduously to cultivate the friendship of Mr Hepburn, from whose sister-in-law, Mrs Janet Denoon, he first heard the old song of *Gil Morrice*. This ballad furnished the hint on which he constructed the tragedy of *Douglas*, in the composition of which he amused himself occasionally the next five years, submitting the successive scenes to the revision of a few friends. His own handwriting was scarcely legible, and the play was repeatedly transcribed by Dr Carlyle. From this circumstance, and from the warm interest which that gentleman took in the success of the piece, he was commonly supposed to have had a principal share in the composition. Sir Gilbert Elliot's criticisms were acknowledged to be particularly valuable, and he also was not unfrequently reputed

Home. the author. In February 1755, Mr Home set out for London on horseback, with his tragedy in one pocket, and some clean linen in the other; and was accompanied into Northumberland by a cavalcade of clerical friends, two of whom, Carlyle and Cupples, proceeded with him a stage or two beyond Durham. This play, as well as *Agis*, was rejected by Garrick, not so much, perhaps, owing to any defect in his own taste, as because it did not contain much of that pomp and circumstance which seemed to be the chief attractions of the tragedies which were at this time favourites with the public.

Whilst Mr Home was engaged in the composition of this play, he had not been inattentive to other affairs more nearly connected with the clerical profession. In 1752 he took an active part in the deliberations of the General Assembly, when Mr Gillespie was deposed. The year before, he had made the motion to suspend Mr Adams of Falkirk, for disobeying an order of the General Assembly, and was seconded by Dr Robertson, the first time either had spoken in that house. They were not members next year, but both spoke at the bar with great effect. About this time Mr Home's support was strongly solicited by Dr Cuming, the leader of what was then called the moderate party; but he resolved to act an independent part. He had become a great favourite of Lord Milton, nephew of the famous Andrew Fletcher of Salton; and, as his lordship managed the political affairs of Scotland, under the direction of Archibald duke of Argyll, he took an opportunity of introducing Mr Home to his grace, who was much delighted with his cheerful and fascinating manners, and continued to befriend him ever afterwards. Mr Home paid a visit to the duke at Inverary, in October 1756, and was most kindly received. At this time he was closely connected in friendship with the members of the *Select Society*, established at Edinburgh in 1754.

It was resolved at last, by the friends of the author, in December 1756, to have *Douglas* represented on the Edinburgh stage; and the result far exceeded their most sanguine expectations. Digges performed *Young Norval*, and *Lady Randolph* was personated by Mrs Ward. The theatre was crowded night after night, and the applause of the audience was tumultuous. Not only all the literati attended, but most of the judges and other grave characters, whose presence in the theatre excited great surprise and not a little scandal. Before this time the inhabitants of Edinburgh had not been much accustomed to dramatic entertainments, as the leaders of the church had generally had sufficient influence to induce the civil power to suppress them. In the year 1727, the Presbytery of Edinburgh issued an *Admonition against the Stage*; and, in 1733, in consequence of a sermon on the *Use and Abuse of Diversions*, by Mr George Anderson, a minister of Edinburgh, various pamphlets were published, particularly one by Mr Anderson himself, in which he denounced the stage as an unchristian diversion, and repeated all the arguments against it produced by Prynne, Filmer, Baxter, and Collier. Following the example of their predecessors, this body issued a similar admonition and exhortation to all within their bounds, on the 5th of January 1757, and not only suspended Mr White, minister of Libberton, for having been present at the performance of *Douglas*, but wrote letters to the presbyteries of Haddington, Dalkeith, Ayr, Chirnside, and Dunse, informing against those of their members who had been guilty of the same indecorum. Some of the clergymen accused were allowed to escape with a gentle rebuke; but Dr Carlyle was libelled, as it is called, by his presbytery, at the instigation, as he believed, of an eminent lawyer, then lord advocate, whose conduct on that occasion was afterwards sufficiently avenged by the ridicule heaped upon him in an humorous political satire, by Dr Adam Ferguson, entitled *The History of Sister*

Home. *Peg.* Several abusive pamphlets against the play and its supporters were known to proceed from the minions of this gentleman, who was then rising to a degree of consequence which soon supplanted the declining influence of Lord Milton.¹

After the play had been so amazingly successful in Edinburgh, it was eagerly admitted on the stage of Covent-Garden early in 1757; but Garrick still excluded it from Drury-Lane. The triumph of the author was, however, in no small degree abated by the prosecution of his friends in the church courts, and by his own threatened deposition. The subject was brought before the General Assembly by Dr Carlyle in the form of an appeal from a sentence of the Synod of Lothian and Tweeddale; and a decision favourable to the appellant was carried by a great majority of 117 to 37. The result of this vote checked the introduction of a very severe *Overture*, which was intended to have been enacted into a law; and next day another motion was substituted, so lenient as to be seconded by Mr Dempster of Dunnichen, the friend of Home and Carlyle, in consequence of which the assembly passed a declaratory law, prohibiting the clergy from attending the theatre, but not discharging them from writing plays. Immediately afterwards, Mr Home thought it expedient to resign his charge; and having preached a most pathetic sermon, which deeply affected his congregation, he took leave of them in the beginning of June 1757, without having incurred any ecclesiastical censure. He then retired for three months to private lodgings at Braid, near Edinburgh, where he gave the finishing hand to the play of *Agis*.

From the moment when Mr Home resigned his living, the prospects of his worldly prosperity began to brighten. The people of England, ever alive to sentiments of compassion, regarded him as a victim to the rigour of Presbyterian bigotry; and though their critics decried the merits of *Douglas*, as being a faulty and languid composition, not sufficiently relieved by either pathos or elegance of expression, they admitted that it exhibited unquestionable indications of true poetical genius, and a power of awakening the most elevated as well as the most tender emotions. Men of the highest rank and influence expected to gain popularity by patronising the author, who, after being known to possess the good graces of the Dukes of Cumberland and Argyll, was warmly recommended by his friend, Sir Gilbert Elliot, to the Earl of Bute, who then superintended the education of the Prince of Wales, afterwards George III. The Princess Dowager of Wales granted him a pension of £100 a year, an allowance equal to the value of the living which he had resigned; and assurances were given him of a more ample provision at no distant period.

In one respect, the partiality of his literary friends, and

the favour of the great, had an injurious effect on his future fame, not only by producing an impression that he had gained by flattering assiduities what merit alone was seldom known to procure, but by exciting expectations in the minds of numbers that his more mature exertions would far surpass the earliest specimen of his powers as a dramatic writer. The warm encomiums of David Hume were naturally ascribed to the partiality of friendship; but the opinion expressed by Gray the poet, that the tragedy of *Douglas* had "retrieved the true language of the stage, lost for three hundred years," seemed to imply a preference of the muse of Home even to that of Shakspeare himself. The objections of Garrick to the tragedy of *Agis* were no longer urged; and though this was in fact the earliest effort of an unpractised writer, it appeared under the disadvantage of being considered as a work of higher pretensions than that which had already been so well received by the public. It is also to be presumed, that though in its finished state it retained many lofty sentiments of freedom and patriotism, yet, as the author began to breathe the atmosphere of a court, he was tempted to soften some of his boldest images, so that the piece may have lost in spirit more than it gained in polish. It was brought out at Drury-Lane in 1758, and, partly owing to the admirable acting of Garrick in the character of Lysander, had a successful run of nine nights. The author cleared several hundred pounds, but the anticipations of the public were not fulfilled. "I cry," said Gray, "to think it should have been by the author of *Douglas*. Why, it is all modern Greek. The story is an antique statue, painted white and red, frizzed and dressed in a negligee made by a Yorkshire mantua-maker."

In 1759, the *Siege of Aquileia* was first performed at Drury-Lane, but was by no means so successful as Garrick had expected. Garrick and Home were now on the most intimate footing; and as Home listened with much deference to the criticisms of this great actor, and generally followed his advice, the latter, on the other hand, courted the good graces of Home, by consulting him in his difficulties, and soliciting him to act as his friend, or second, in certain quarrels, which threatened to terminate in duels. Early in 1760, Mr Home's first three plays were published in one volume, which was dedicated to the Prince of Wales.

After the accession of the prince to the throne, the Earl of Bute became prime minister; and from this period Mr Home for many years lived constantly with his lordship, at least from October to May, and was well known to possess the first place in his confidence and favour. Mr Home was always most active in promoting the interest of those who called themselves his friends, and conferred the most valuable obligations upon many individuals, who

¹ The following are some of the most remarkable pamphlets published on this occasion:—1. Admonition and Exhortation of the Presbytery of Edinburgh. 2. Witherspoon's Serious Enquiry into the Nature and Effects of the Stage. 3. The Immorality of Stage Plays in general, and of the Tragedy called *Douglas* in particular, briefly illustrated. 4. The Usefulness of the Edinburgh Stage seriously considered. 5. The Tragedy of *Douglas* analysed. 6. A Letter to Mr David Hume on the Tragedy of *Douglas*. 7. An Apology for the Writers against the Tragedy of *Douglas*, with Remarks on that play. 8. The Deposition, or Fatal Miscarriage, a tragedy. 9. *Douglas*, a Tragedy, weighed in the balances and found wanting. 10. The First Night's Audience, an excellent new ballad. 11. The Stage or the Pulpit, two parts. 12. The Apostle to the Theatre his Garland. 13. The Finishing Stroke, or Nothing, a ballad. 14. The Infernal Council, an excellent new ballad. 15. A Song or a Sermon, a new ballad, Saturday, 29th January 1757. 16. The Admonition, an execrable new ballad. 17. Advice to the Writers in Defence of *Douglas*. 18. An Epilogue to the Tragedy of *Douglas*, spoke by the Author. 19. An Argument to prove that the Tragedy of *Douglas* ought to be Burnt by the Hands of the Hangman [ironical, by Dr Carlyle]. 20. The Moderator, Nos. 1 and 2. 21. Votes of the Presbytery of Edinburgh, 29th December 1756. 22. A Letter to the Reverend the Moderator, &c. of the Presbytery of Haddington. 23. A Letter to the Author of the Ecclesiastical Characteristics. 24. The Morality of Stage Plays seriously considered [by Dr Ferguson]. 25. Some serious Remarks on a Pamphlet, entitled the Morality of Stage Plays seriously Considered [by the Reverend Mr Harper, an Episcopalian clergyman]. 26. The Players' Scourge. 27. A Letter to the Author of the Ecclesiastical Characteristics. 28. A Second Letter to the same. 29. Unto the Right Ethereal the Siplers, the Petition of Poor Alexander Bonum Magnum. Most of these are unfavourable to the play (some of them written by Mr Maclaurin, afterwards Lord Dreghorn); others contain very indecorous strictures on the conduct of Drs Cuming, Walker, and Webster, who were active in discouraging the attendance on the theatre, and in prosecuting offending brethren.

Home.

were more forward to solicit his services than to testify their gratitude. But it is well known that he never teased his patron with applications in his own behalf; and it is believed that he might have been overlooked altogether, if Lord Bute had not been prompted by another friend to bestow upon him some honourable and lucrative appointment. A pension of L.300 a year was granted to him in July 1762, and another of equal amount was at the same time conferred on Dr Johnson. In the course of the following year, the place of *Conservator of Scots Privileges at Campvere* was bestowed upon him, the value of which appointment was also L.300 a year; and from this period his name appears annually in the list of members of the General Assembly, as elder for the church of Campvere, under the title of *Lord Conservator*. He regularly attended the meetings of the assembly, and took a lively interest in the proceedings. He had little turn for business, but he occasionally spoke with much energy and effect. He was ambitious to have a seat in the House of Commons, and repeatedly signified his wishes, which at one period might have been easily fulfilled, if he had not been dissuaded by Sir Gilbert Elliot and Sir William Pulteney, not only because they knew that he would be considered as disqualified, by having been in orders, but because they were convinced that, even if that objection were not started, he would make no great figure as a debater. When in London he lived on terms of great cordiality with Armstrong, Smollett, Dr Pitcairn, Dr William Hunter, Mr Wedderburn, afterwards chancellor, and the Honourable Charles Townshend. He had a particular pleasure in fostering rising merit. In the year 1759, he stimulated James Macpherson to collect what were called the *Poems of Ossian*; and he afterwards accompanied him on one of his tours, partly with the hope of sharing in the pleasure of discovering the poetical remains of distant ages, but chiefly with the view of searching for materials which might throw light on the history of the rebellion in 1745.

In 1769, his tragedy of the *Fatal Discovery*, the fable of which is borrowed from one of the fragments ascribed to Ossian, was performed at Drury-Lane, with indifferent success. At this time the prejudice against Scotchmen was so strong in London that Garrick apprehended a total failure of the play if the author were known. At his suggestion, therefore, the title was altered from *Rivine* to the *Fatal Discovery*; and for some nights the representation was greeted with loud applause, the play being ascribed either to Gray or to Smith. Mr Home's love of praise, however, betrayed the secret, and from that moment the audience sensibly diminished every night. In February 1773, *Alonzo* was brought out, and was well received. This play is recommended by the simplicity of the plot, the harmony of the versification, and the dignity of the sentiments; but some of the incidents are improbable, the language occasionally too mean, the apostrophes too frequent, and it has more eloquent declamation than natural feeling, more graceful description than pathetic effect. The acting of Mrs Barry affected the feelings of the audience so powerfully as to disarm the severity of criticism. To this tragedy, as well as the *Fatal Discovery*, Garrick furnished an epilogue. The theatrical career of Mr Home was closed with the play of *Alfred*, which was represented at Drury-Lane in January 1778. It was listened to the first evening; but a less crowded house was never known than on the second, and after the third performance the author withdrew it.

For many years Mr Home lived chiefly in London. In 1767 he obtained from Sir David Kinloch a long lease of Kilduff, a farm in East Lothian, on which he built a house. In 1770 he married Miss Home (daughter of Mr Home, minister of Fogo, formerly of Polwarth), a lady of very

delicate constitution, who, however, survived him several years.

In 1778, when the Duke of Buccleuch raised the regiment of *South Fencibles*, Mr Home's military ardour induced him to accept a commission as lieutenant, the same rank which he had held more than thirty years before; and he gave occasion to some sneers from his graver brethren, by sitting in the General Assembly in his scarlet regimentals. After being nearly two years an officer, he was disabled for military service by a fall from his horse, which, though it did not permanently affect his health, continued through life to impair the vigour of his faculties, and to diminish the flow of his spirits. About this time he left Kilduff, and took up his residence in Edinburgh for the remainder of his life. Till within five years of his death, he was accustomed to pay an annual visit to London; and such was the force of habit, that his friends experienced great difficulty in prevailing with him to desist from these expensive and unnecessary journeys.

In 1798 an edition of his plays was published, in two volumes, now rarely to be procured.

His last work, the *History of the Rebellion in 1745*, was published at London in 1802, in a quarto volume. It had long been understood to be in a state of perfect preparation, but it was not expected to appear in the author's lifetime, as there was reason to apprehend that much of the matter which it contained would prove offensive to some distinguished individuals, whose hostility it was not desirable to encounter. In the first sketches of it, the author is said to have ardently applauded the disinterested motives and gallant conduct of the adherents of the house of Stuart, to whom he had been opposed in the field; and whilst he did ample justice to their devoted attachment and heroic efforts, he was not sparing of the indignation due to the barbarities perpetrated by the prevailing party after the victory of Culloden. Some influence, however, was exerted to hasten the publication, and the author had not the courage to resist the temptation to suppress and qualify many of his first statements. As a composition, it was certainly not improved by what were intended as the finishing emendations; but, if its interest has been weakened, its impartiality has probably been more effectually secured than if it had retained its original form; and, though the book gave much less satisfaction than if it had not been so anxiously expected, its merit has certainly been unduly depreciated. The style, indeed, is negligent, and the reflections not profound; but if the comments of the author are few and obvious, the detail is generally so full as to enable the reader to draw just conclusions; the battles are graphically described, and, as far as the narrative extends, it is entitled to unreserved credit. Perhaps the chief cause why the work was never highly applauded has been, that it is not written so as to gratify the prejudices either of one party or another.

Mr Home died at Merchiston, in the neighbourhood of Edinburgh, on the 5th of September 1808, when he had nearly completed his eighty-sixth year. In private life no man was ever more entirely beloved. His affections were equally warm and stedfast; and much as he had moved in the highest circles, not without pluming himself sufficiently on his intimacy with the great, he never forsook the interest of his friends in humbler stations, or betrayed any expectation of deference from those who were dependent on his good offices. His temper was placid, and though there were occasions on which he manifested some warmth of feeling, he was neither apt to resent injuries nor to inflict pain. He was never known to grudge any exertion which tended to benefit or gratify his friends; and long after the activity of his mind had begun to languish, he continued as eager as ever to confer unsolicited favours, and to use all the influence which he possessed to reward

Home.

Homer.
Homer.

neglected merit. He was alleged to be rather apt to flatter; but the fact was, that he appeared never to discover any defects in the character of those whom he esteemed; and, with all the blindness of a lover to the objects of a first attachment, the overflowing benevolence of his heart disposed him to invest his early friends with every perfection of which human nature is susceptible, and to spread the veil of charity over blemishes and offences. If he had not been early enticed into the vortex of fashion and politics, he might have attained higher eminence as an author; but, in spite of all the temptations of vanity, and the petulant and persevering attacks of envy, he could scarcely, under any circumstances, have proved more amiable as a man.

(P. P. P.)

HOMER, *Sir Everard*, an eminent surgeon, was born about the year 1755. He was of Scottish extraction, and his connection with the Hunters brought him into notice at an early period of life. At one time he was held in high estimation as a surgical practitioner, and obtained the more substantial advantage of an extensive practice. He had the good fortune to be appointed one of the surgeons to St George's Hospital; and this circumstance, added to the publication of various works which attained a considerable share of celebrity, contributed to extend his reputation, the advantages of which he lived nearly half a century to enjoy. In 1813 he was created a baronet, and was also appointed serjeant-surgeon to the king. For several years before his death, which took place on the 31st of August 1832, in the seventy-seventh year of his age, Sir Everard Home had retired from practice, and sought in private life the repose which his increasing age and infirmities required. Sir Everard was the author of *Practical Observations on Stricture*, of *Lectures on Comparative Anatomy*, and of various papers in the *Philosophical Transactions*; but none of his productions discovers much depth of research, or any great originality of speculation.

(A.)

HOMER, the greatest, and perhaps also the least known, of all poets. After so many ages, all the details of his life are still an object of doubt, and even his existence is a problem. Some represent him as a native of Egypt, the son of Damagoras and Echras, whilst his nurse, a daughter of Horus, priest of Isis, was a prophetess; according to these persons, he played in his cradle with nine turtle doves, and the first accents of his voice resembled the warbling of nine different kinds of birds. Others give him an origin still more illustrious, and seek to ennoble the birth of the poet on whom the far higher distinction of genius had conferred immortality. But whilst his admirers compose for him these splendid genealogies, and even make him descended in the right line from Apollo himself, his detractors see in him only a wretched mendicant, who begged from town to town; a plagiary, who strolled about through the world in quest of the authors who had, before his time, written on the war of Troy; a man of slender parts, easily vanquished in the poetical contest with Hesiod, and other poets. The most celebrated and the least ridiculous of these pretended histories is that which, notwithstanding the doubts and conjectures of several learned men, continues to be attributed to Herodotus; probably because there is something piquant in the notion that the father of history had written the life of the father of poetry. But, however this may be, since Strabo has not disdained to cite as an authority this historical romance, nor the learned Larcher to translate it, we conceive it necessary to exhibit a rapid analysis of its contents.

Homer.

A certain Menalippus, by birth an Athenian, but settled at Cumæ in Ionia, having married the daughter of a citizen called Homyres, had by her a daughter named Critheis, who after the death of her parents passed under the guardianship of Cleonax, the friend of her father. This Cleonax abused the trust which had been reposed in him, and Critheis became pregnant by her guardian. But the latter, being anxious to conceal the condition of his ward, sent her to Smyrna, where she gave birth to Homer, whom she called *Melesigenes* (from the river Meles, on the banks of which he was born), and where also she was reduced to the necessity of spinning wool for subsistence. After this misfortune, Phemius, who taught literature and music with credit at Smyrna, having frequent occasion to see Critheis, who resided near him, conceived a passion for the lady, married her, and adopted her child. Homer, having become an orphan by the death of Phemius, succeeded to the fortune and the school of his adoptive father, and in the capacity of teacher soon acquired great reputation. But a shipmaster called Mentès, a lover of learning and poetry, having become acquainted with Homer, persuaded the poet to abandon the school at Smyrna, and to accompany him in his voyages. Homer, who already meditated the *Iliad*, and wished to acquire personally the knowledge of different countries, particularly those which he might have occasion to describe, eagerly embraced the opportunity thus offered; and, during several voyages, he failed not to treasure up in his mind whatever he deemed worthy of being remembered. After having visited Italy and Spain, he landed on the island of Ithaca, where he learned many particulars respecting Ulysses; he also visited Egypt, whence he brought into Greece the names of the gods of that country, with the chief ceremonies of their worship; and having finished his travels, he returned to Smyrna, and there completed his *Iliad*. It was his intention to remain in that place; but public favour having abandoned him, he left the ungrateful country, and wandered through several cities in Asia Minor, reciting his verses, and experiencing in turn good and evil fortune. At length he established himself at Chios, where he opened a school, acquired some property, married, became the father of two daughters, and was at last struck with blindness. It was in this retreat that he composed the *Odyssey*; but being desirous to pass into Greece, that he might display his genius upon a larger theatre, he died on his passage, at Ios, one of the Sporades, the inhabitants of which raised on the sea-shore a tomb to his memory.

If in all this narrative there be little that is true, it contains nothing which shocks in the recital; and if, in fact, it be merely a romance, it has at least a certain degree of verisimilitude. Of all the cities which disputed the honour of having given birth to Homer,¹ Smyrna and Chios are those which supported their pretensions by proofs apparently the most plausible. The citizens of Chios boasted of possessing, in the family of the *Homerida*,² the descendants of this illustrious poet, in honour of whom they had struck a medal, representing Homer, and the river Meles, on the banks of which he is said to have been born. But, amidst so many different opinions, the most probable seems to be that Homer first saw the light near Smyrna; that his life was wandering, like that of the poets of his time; that, in the course of his travels, he visited the Greek cities, composing hymns for the festivals of the gods, and reciting his poems in the religious and public assemblies; that he lost his sight, a deprivation which he felt acutely, and deplored with mournful pathos; and that he lived for some time at

¹ Varro reckons seven of them, in a distich which Aulus Gellius (lib. iii. c. 2) has preserved.
Smyrna, Chios, Colophon, Salamis, Rhodos, Argos, Athenæ,
Orbis de patria certat, Homere, tua.

² Leo Allatius distinguishes the *Homerida* from the *Homeristæ*, a kind of itinerant singers, or minstrels, who recited in public the verses of Homer; but this is a vain dispute of words, and Allatius is here evidently influenced by a desire to ensure to Chios, where he himself was born, the preference over the other cities of Greece which disputed the honour of having given birth to the great poet.

Homer. Chios, and died, at an advanced age, in the small island of Ios. But if he was reduced to indigence, and sometimes compelled to beg an asylum during his life, the Smyrneans, Ptolemy Philopator, and others, consecrated temples to him after his death, and the Argives paid him divine honours.

The epoch in which this great poet was born is not less obscure than the history of his life. If we may believe some Greek writers, he was contemporary with the siege of Troy, and had actually witnessed the events which he celebrated in song. But others place his birth at an epoch nearer to ours by eighty, a hundred, and even upwards of three hundred years. Velleius Paterculus, who wrote towards the close of the reign of Tiberius, or about the year 37 of our era, affirms that nine hundred and fifty years had elapsed between the age of Homer and his own time. Pliny and Juvenal, who flourished under Vespasian and Domitian, reckon nearly a thousand years; and Solinus, with some degree of confidence, assigns the epoch of the death of Homer by fixing it in the seventy-second year after the capture and destruction of Troy. According to the Arundelian marbles, he flourished in the tenth century before Christ, whilst other authorities assign the eighth as the period to which he belonged. In this conflict, or rather chaos, of different opinions, the learned Larcher, whose judgment is an authority in matters of chronology, gives a calculation from which it follows that Homer must have been born 884 years before our era; and this epoch appears more reconcilable with the details of the brilliant and sumptuous arts of a refined luxury, which he sometimes retraces, and which appear but little compatible with the rudeness of an age approximating more closely to the time of the Trojan war. The age of Homer indeed is pretty clearly indicated by the following considerations: 1. At the funeral of Patroclus, Achilles celebrates almost all the games which were subsequently in use at Olympia in the most refined period of Greece. 2. The arts of casting in bas-relief, and of engraving on metals, had already been invented, as is proved, amongst other things, by the shield of Achilles; but neither Homer nor Moses makes any mention of painting. 3. The delicious gardens of Alcinous, the magnificence of his palace, and the sumptuousness of his table, prove that the Greeks had already learned to admire luxury and splendour. 4. The Phœnicians had already introduced ivory, purple, and incense from Arabia (as in the description of the grotto of Venus in the Odyssey), *byssus* or fine linen (perhaps cotton), and rich robes. 5. The carriage in which Priam goes to seek Achilles is made of cedar; and the grotto of Calypso is fragrant with that odoriferous wood. 6. The voluptuous baths of Circe indicate a great advancement in luxury. 7. The young slaves of the suitors are described as beautiful, graceful, and fair-haired, such precisely as the fastidiousness of modern times requires as servants. 8. Men dress their hair as carefully as women; a habit with which Hector and Diomedes reproach Paris. 9. The Homeric heroes eat nothing but roast meat, the most simple mode of cookery, demanding only a brazier; and this custom continued in sacrifices. Boiled meat came into use afterwards. 10. Lastly, Homer seems to have lived in an age when the strict heroic or feudal right had fallen into disuse in Greece, and popular liberty had begun to appear; for his heroes contract marriages with foreign women, bastards succeed to their fathers' thrones, and many other circumstances unite to show that the heroic or feudal right had expired. From all these authorities, then, we incline to the opinion of those who place the age of Homer long subsequent to that of the Trojan war, though probably not so late as the reign of Numa, with whom he is thought by some to have been contemporary.

But the admitted difficulty, or rather impossibility, of arriving at any thing positive in this respect, induced several writers to fly to the opposite extreme; and whilst some

Homer. assigned bases to the Homeric chronology which they considered as certain, others called in question the very existence of Homer himself, and supported their opinion with what they deemed incontestable authorities and unanswerable reasonings. The boldest and most singular of these paradoxes is that of Jacob Bryant, who does not, it is true, deny the existence of Homer, but who makes him a native of Thebes in Egypt. In the view of this learned person, Homer was a superstitious poet, who, after having grown old on the banks of the Nile, purloined the poems of the ingenious *Phantasia* deposited amongst the archives of the temple of Isis. According to him, the events of the Iliad and Odyssey were, in the original, mere reminiscences of Egyptian annals; but the adroit plagiarist, it seems, transported the scene into the Troad, and disguised under Greek names the gods and heroes of the monarchy of the Pharaohs. Nor was this a solitary extravagance. A learned Dutchman, Crœsius, discovered, in the Odyssey, the history of the Israelites under the patriarchs, and detected the capture of Jericho in the Iliad; whilst another went still further, and gravely maintained that Homer and Hesiod were natives of Belgium. But the hypothesis of Wolf is one of a far higher order; and the weight of such a name must always command a serious consideration of those opinions to which its sanction is deliberately attached.

This distinguished critic and scholar, to whom we are indebted for the best edition of Homer which has yet appeared, attempts, in his *Prolegomena ad Homerum*, to prove that the author of the Iliad and Odyssey is an imaginary being; in Homer he sees a rhapsodist, and nothing more, a minstrel who laid the foundations of that fabric which his successors from age to age slowly raised until it obtained the elevation, symmetry, and unity which we now admire in its general structure. This sceptical hypothesis had not the merit of novelty; but it made little or no impression upon the learned until it borrowed from the talent and erudition of Wolf all the authority necessary to excite general attention, and to call for rigorous examination. Two Frenchmen, of no great distinction, Hedelin and Perrault, are supposed to have led the way in questioning the personal existence of Homer as the author of the Iliad, and to have first suggested some hints of a theory respecting the composition of that poem, which have since been developed with profound learning and wonderful talent by Wolf and Heyne. Hedelin's book, entitled *Conjectures Académiques, ou Dissertations sur l'Iliade*, was published in 1715; and that of Perrault appeared not long afterwards, under the title of *Parallèle des Anciens et des Modernes*. Hedelin had the exquisite judgment to compare the rhapsodies to the *chansons du Pont-Neuf*, and to maintain that the Iliad was made up "ex tragediis et variis canticis de trivio, mendicorum et circulatorum," in the manner of these Parisian ballads. Not long afterwards Bentley expressed a similar opinion respecting the history and compilation of the Iliad. "Homer," says he, "wrote a sequel of songs and rhapsodies to be sung by himself, for small earnings and good cheer, at festivals and other days of merriment: the Iliad he made for the men, and the Odysseis for the other sex. These loose songs were not collected together in the form of an epic poem till about five hundred years after." But a still bolder theory was promulgated in the *Scienza Nuova* of Giambattista Vico, the second and complete edition of which appeared at Naples in 1730; a work which, from its enigmatical style and form, is one of the most obscure books of modern times, but which was intended by its author to form a *Novum Organon* of politico-historical knowledge. Vico's uncompromising reasoning *a priori*,—which, borrowing no assistance from history, will let no history stand in its way,—is not likely to make any one convert to his whole system. But parts of it have of late

Homer. years been adopted or approved by very distinguished writers;¹ and, in regard to the Homeric poems, he has sketched, with sufficient clearness, the outline of the very theory which is developed with so much ability and force in Wolf's *Prolegomena ad Homerum*. Vico, in fact, distinctly asserts that the Iliad and the Odyssey were first constructed by the Pisistratidæ:—"Ch' i Pisistratidi . . . disposeo e divisero, o fecero disporre e dividere i poemi d'Omero nell' Iliade e nell' Odissea; onde s' intenda, quanto innanzi dovevan' essere stata confusa congerie di cose, quando è infinita la differenza degli stili dell' uno e dell' altro poema."² He expresses a suspicion that the Homer of the Odyssey belonged to the west, and the Homer of the Iliad to the north-east of Greece; and, in his *Scoperta del vero Omero*, he seems to intimate an opinion that Homer himself is an ideal personage, but that his poems are, if we may so express it, the collective voice of the heroic age, in which all history was poetry, and all poetry founded on history. "E certamente," says this modern Heraclitus, "se, come della guerra Trojana, così di Omero, non fossero certi gran vestigi rimasti, a tante difficoltà si direbbe ch' Omero fosse stato finto un poeta d' idea, il quale non fu particolar huomo in natura. Ma tali difficoltà, est insieme i poemi di lui pervenuti sembrano farci cotal forza di affermarlo per la metà, che quest' Omero sia egli stato un' idea; ovvero carattere eroico di huomini Greci, in quanto essi narravano cantando la loro storia."³

The substance of this theory, as stated by Wolf and Heyne, is, that whether any such person as Homer ever existed or not, the Iliad and the Odyssey were not composed entirely by him or by any other person, but are compilations, methodised by successive editors, of minstrelsy, the effusions of various poets of the heroic age, and all having one common subject or theme; namely, the war of Troy, and the exploits and adventures of the Grecian chiefs engaged in it. The question as to whether

The blind old man of Scio's rocky isle

ever lived or not, does not enter as an essential ingredient into the theory so ably elucidated by Wolf and Heyne. That Homer lived and Homer sung, is indeed denied by both, as it had previously been by Giambattista Vico; but, even if the fact of his personal existence were admitted to the fullest extent desired by his unitarian admirers, the material question as to the dispersion of the separate books or rhapsodies, and their reincorporation, or rather their primary construction, into one uniform whole, would still remain to be settled. The theory of which we have traced the origin and development may no doubt appear at first view startling and paradoxical; but, however unlike to any thing of which we may have heard, and however impossible it may be thought in the age in which we now live, there are arguments in its favour, which, with all unprejudiced inquirers, will ever save it from neglect or contempt, and which, in any view, merit the most serious consideration. Of these we shall now proceed to lay a condensed abstract before our readers.

Homer. Wolf, Heyne, and their numberless followers in Germany, contend that the argument derived from the apparently undoubting belief of the earliest as well as the greatest writers of Greece, after the Homeric age, and from the general consent of all mankind in the same faith ever since, proves a great deal too much: That, besides the Iliad, Odyssey, Batrachomyomachia, Hymns, and Epigrams, at least twenty other poems⁴ were, in former times, ascribed to Homer: That many passages of these poems which are still preserved, contain variations from, and even direct contradictions of, the tenor of the Iliad: That, in the age of Herodotus, the Cyprian verses, and the *Epigoni*, were commonly considered as Homeric poems: That Thucydides quotes the Hymn to Apollo exactly in the same tone in which he quotes or speaks of the Iliad: That nevertheless the general opinion now is that these hymns are not by the author of the Iliad: That Plato expels Homer from his republic, on account, amongst many others, of a well-known passage in the Odyssey:⁵ That nevertheless many of the ancients, as well as moderns, who admitted the genuineness of the Iliad, doubted or denied that of the Odyssey: That there is nothing in this weakness of critical discernment, even when imputed to Herodotus, Thucydides, and Plato, which should surprise a Hellenist, seeing that, in the times of republican independence, the investigation of the genuineness of the national compositions formed no part of scientific criticism, much less of the general duties of the philosopher and historian: That as Herodotus and Thucydides quote Homer merely as an historical authority, so Plato censures him for moral or political reasons; and hence a reference to his poems was equally necessary for both purposes, whether the common belief as to their origin were well founded or the contrary: That, in modern Europe, at the period of the revival of letters, this branch of criticism became of paramount importance, and conferred the greatest benefits on awakening learning, by rescuing the genuine relics of ancient Greece and Rome from the mass of fiction and interpolation which had been accumulated on them during seven centuries of barbarism: That, in fact, the early Greeks knew no literature but their own; and, considering how little attention even we, with our different habits and capabilities, ever paid to the mere external history of our earliest works, until a very recent period, we have no reason to think it unaccountable that a chronicler, historian, or philosopher of ancient Greece, should either never have doubted, or but hinted doubts, as to the genuineness of a body of popular poetry, supposed to be of Asiatic growth, and of an antiquity open to nothing but conjecture.

The Wolfian hypothesis rests also upon grounds of external probability. "It is further said," observes Mr Coleridge, "that the art of writing, and the use of manageable materials, were entirely, or all but entirely, unknown in Greece and its islands at the supposed date of the composition of the Iliad and Odyssey;⁶ that, if so, these poems could not have been committed to writing during the time of their composition; that, in a question of comparative probabilities, like this, it is a much grosser improbability

¹ Niebuhr is largely indebted to the *Scienza Nuova* for its views of the early history and real character of the Roman state; whilst the praiseworthy labours of Michelet promise to extend the fame and influence of this singular work farther than the enigmatical obscurity of the original Italian would ever admit of. (See *Principes de la Philosophie de l'Histoire*, traduits de la '*Scienza Nuova*' de J. B. Vico, par Jules Michelet, Paris, 1827.)

² *Scienza Nuova*, lib. ii. p. 373.

³ *Scienza Nuova*, lib. iii. c. 7. Mr Coleridge has placed at the end of his account of the origin and preservation of the Homeric poems a translation of Vico's treatise on the discovery of the true Homer.

⁴ These were, *Amazonia*, *Thebaid*, *Arachnomachia*, *Geranomachia*, *Iresione*, *Epigoni*, *Epithalamia*, *Epicichlides*, *Capra*, *Ithas Minor*, &c. &c.

⁵ *A'*. xi. 487.

⁶ "Jam vero non modo nullum tale in Homero extat testimonium rei vel vestigium, nullum ne tenuissimum quidem initiorum legitimæ scripturæ vel Cadmei muneris indicium, sed, quod longe maximi momenti est, contraria etiam omnia. Nusquam vocabulum *libri*, neque *scribendi*, nusquam *lectionis*, nusquam *litterarum*: nil in tot millibus versuum ad lectionem, omnia ad auditionem com-

Homer.

that even the single Iliad, amounting, after all curtailments and expungings, to upwards of 15,000 hexameter lines, should have been actually conceived and perfected in the brain of one man, with no other help but his own and others' memory, than that it should in fact be the result of the labours of several distinct authors; that if the Odyssey be counted, the probability is doubled; that if we add, upon the authority of Thucydides and Aristotle, the Hymns and Margites, not to say the Batrachomyomachia, that which was improbable becomes morally impossible; that all that has been so often said as to the fact of as many verses or more having been committed to memory, is beside the point in question, which is not whether 15,000 or 30,000 lines may not be learnt by heart from print or manuscript, but *whether one man can originally compose a poem of that length*, which, rightly or not, shall be thought to be a model of symmetry and consistency of parts, *without the aid of writing materials*; that, admitting the superior probability of such an achievement in a primitive age, we actually know nothing similar or analogous; and that it so transcends the common limits of intellectual power, as at least to merit, with as much justice as the opposite opinion, the character of improbability.¹

This is undoubtedly a strong case; nor is it easy to see how the force of the argument urged by Wolf and his followers can be resisted, unless the facts upon which it mainly depends be disproved. We may be powerfully impressed with the grandeur and unity displayed in the Iliad; this impression may be strengthened by more frequent study of the general effect of the poem; and we may feel reluctant to abandon the ancient faith, with which so many interesting recollections and associations are entwined: But, as long as the external facts remain unrefuted, "the internal evidence of the unity of design" will never prevail over the conclusion deduced from them. Mr Milman, indeed, seems to think, that, on the general question of the origin of letters, the mass of authorities collected with great industry, and the arguments urged with equal ingenuity by Kreuser,² in some degree endanger Wolf's hypothesis as to the recent introduction of writing into Greece, that is, scarcely prior to the time of Solon. But he admits it to be "undoubtedly embarrassing that, if writing was common in the days of Homer, no allusion, except in one doubtful passage,³ should be found, in either of the great poems, to an art, which might at first sight appear to be necessarily mingled up with all the transactions of war or pacification, of public and private life." Besides, the precise fact, whether alphabetical characters were absolutely unknown in Greece in the age of Homer, is declared by Heyne to be immaterial to the argument; because, whether known or not, it is certain that down to a period later by two centuries than the latest date assigned as the era of Homer, there were no materials which a Greek author could have employed for the ordinary purposes of composition. It is of no avail to prove that some Greeks had the art of carving on marble or on wood; nor is the difficulty removed by presenting a blind poet with a pen of iron and some plates of lead. If there be any weight in the objection, that no one person could have

composed the Iliad and the Odyssey by the force of mere mental retention alone, nothing will ever dispose of it except a demonstration that the poet had some manageable substance upon which to write. The main point, as Mr Coleridge has most justly observed, is not whether poems of such length might not be preserved by memory, *when once composed*, but *whether they could have been constructed in the mind of the bard, without the assistance of letters and writing materials*, to record the fleeting thoughts which passed in quick succession, and were succeeded by others hurrying forward in unceasing and inexhaustible rapidity. The preservation of poems by memory, when once composed, and their oral transmission from age to age, may at once be conceded, because it leaves unimpaired the force of the argument founded upon the moral impossibility of any one person having both composed and retained in his mind, as well as communicated to others, as many as thirty thousand verses.

The more sagacious and candid of those who maintain the unity and authorship of Homer have accordingly felt and acknowledged the force of Wolf's argument. It is indeed admitted by Milman, one of the ablest of his opponents, that even Kreuser's argument in favour of the early introduction of letters and writing into Greece leaves the main question undecided; and, besides, Kreuser himself is a follower of Wolf upon the fundamental point in dispute. In an essay read to the academy of Berlin, the author, M. de Mérian, adopts the same position as Wolf; he denies to Homer the use of writing materials, but says the poet might have done very well without them. This, however, is cutting the knot, not resolving it. The material issue is, Could the poet do at all without them? Of the cases cited by M. Mérian, one is not in point, and the other is unsupported by authority. After many irrelevant instances of learning by heart from book or recitation, he alleges the example of the Italian improvvisatori, and that of Tasso, who, he says, composed four hundred stanzas of his *Gierusalemme Liberata*, equal to 3200 verses, without ever writing them down. The story, however, is not authenticated by any kind of evidence; and unless there be Tasso's own word for it, who will believe that he never tried one of those stanzas in a written form? Besides, it is well known that, during many years of learned leisure, Tasso meditated and arranged the plan of his poem, of which he drew up numerous sketches; so that these four hundred stanzas were, at most, but the filling up of a picture, the outline of which had already been prepared. As for the improvvisatori, it is sufficient to observe that, with a tolerable stock of common-places in their heads, and with a language on their tongues, one half of which rhymes to the other, these people may, with a little practice and a very small exertion of skill, pour forth verses, as they are called, to almost any extent. But what, we would ask, has such a trick as this to do with the mental composition and correction of thirty thousand hexameters of the Iliad and Odyssey? Cesarotti, it is true, talks gravely of Macpherson's *Ossian*, which he translated, as an instance of poetry of considerable extent, composed by a poet to whom writing was unknown. This, however, is producing one hypothesis which,

Homer.

parata; nulla pacta aut foedera nisi coram; nullus veterum famæ fons præter memoriam et famam et illitterata monumenta; ex eo Musarum, meniorum dearum, diligens et in Iliade enixe repetita invocatio; nullus in cippis et sepulcris, quæ interdum memorantur, titulus; non alia ulla inscriptio; non æs signatum aut facta pecunia; nullus usus scripti in rebus domesticis et mercatura; nullæ geographicæ tabulæ; denique nulli tabellarii, nullæ epistolæ, quarum si consuetudo fuisset in patria Ulyssis, vel si περιπαιξις percontationibus procorum et Telemachi sufficissent, procul dubio Odysseam aliquot libris brevior, aut, ut Roussavius conjiciebat, omnino nullam haberemus." (Wolfii *Prolegom. ad Homerum*, pp. 88, 89, 90.)

¹ Coleridge, *General Introduction to Homer*, pp. 38, 39. London, 1834, second edition.

² In his *Vorfrage über Homeros*.

³ "The silence of Homer," says Mr Milman, "after all the only extant authority for the Homeric age, is the great difficulty, if indeed he is silent, and if the fatal characters, the σηματα λογιων of the letter of Bellerophon, were but symbolic or hieroglyphic signs." (*Quarterly Review*, vol. xlv. p. 141.)

Homer. to say the least of it, is doubtful, to prove another the truth of which is denied. In fact, all unprejudiced critics are pretty well agreed as to the history and character of the English Ossian; and it is now generally understood and believed, that Macpherson treated the legendary poems ascribed to the Celtic bard, much in the same fashion as the Pisistratidæ are supposed to have done in the case of those attributed to Homer, fusing a number of detached fragments into one mass, filling up interstices and vacuities with a sort of cement prepared by himself, and thus imparting to the whole (as in *Temora*) an *unity*, which certainly could not have been predicated of the materials with which he worked. The Ossian of Macpherson is, in truth, an instance in point against the principle stated by Cesarotti, or rather in favour of its opposite. In the affecting narrative of the imprisonment of Silvio Pellico,¹ we are indeed informed that he and his friend Maroncelli, during their confinement, composed many thousand verses, without the use of writing materials, and with nothing but the power of memory upon which to rely for the preservation of their compositions. This is no doubt one of the best authenticated instances of the power of memory in composition which is anywhere to be found. But still, before even this can be admitted as a pertinent example, it will be necessary to see the verses so composed, and to determine the relation which they bear to the poetry of the *Iliad* and the *Odyssey*; for it is evident that the point in dispute cannot be affected by the mere fact of any number of loose lines having been composed under circumstances so extraordinary, by men entirely separated from the living and active world. Improvisation by itself is nothing. The question is, could a couple of epics, possessing all the qualities requisite in the very highest species of poetry, have been composed and preserved without the aid of writing materials? This is the real issue. Milton was struck with blindness as well as Homer; but the verses which *he* dictated, after he had been deprived of his sight, were immediately committed to writing by faithful and devoted amanuenses. Would they ever have been heard of, if Milton had been as destitute and helpless as Homer is represented to have been?

Further, it is urged that the artificial construction of the plots of the *Iliad* and *Odyssey*, so commonly relied on as an argument for the unity of these poems, is in fact a complete demonstration that their present form cannot be genuine. That the cyclic poets who were contemporary with Homer, or followed in the order of time his age, all composed their works on a plan the very reverse of that which the critics praise so highly in the *Iliad* and *Odyssey*, is established by the censure of Horace, and the testimony of all antiquity. This may be seen, as well from the poem of Quintus Smyrnæus, which is founded on the *Æthiopis*, *Iliad Parva*, and the *Ilii Excidium* of Arctinus and Lesches, as from the epitomes of many other old cyclic poems still preserved in the fragments of the *Chrestomathia* of Proclus, if such evidence be not superfluous. The authors of the *Dionysiaca*, *Thebais*, *Epigoniads*, *Naupactica*, *Genealogies*, and other works of that sort, never dreamed of rushing *in medias res*, as it is said that Homer does; never laid distant trains for future catastrophes; never carried on parallel lines of narrative; never concerned themselves about the critical canon of a beginning, a middle, and an end. They uniformly commence *ab ovo*, and conclude when the war or the pedigree is at an end. They have no hero in favour of whose dramatic superiority all

others are depressed; they have no single primary action, relieved by episodes; they are ignorant of concealments, recognitions, windings-up, and all other cognate artifices. One story follows another, in the order of mere history, just as in the Indian and Persian epics, in the northern Eddas, in the Spanish poem of the *Cid*, and in the early chronicles of every nation with which we are acquainted; the skill and fire of the poet are shown, not in the artifice of grouping a multitude of figures into one picture, but in raising admiration by the separate beauty of each successive image or delineation. They tell the tale as the tale had been told to them, leaving out nothing. Now, if the *Iliad* and the *Odyssey*, such as we actually have them, were previously in existence, or if any poems so constructed were publicly known, soon after the latest date assigned to Homer, how are we to account for the undeniable fact that this splendid example did not find a single imitator amongst the contemporaries or the followers of Homer for centuries afterwards? It can scarcely be said that no poet arose of sufficient genius to effect this. The names of many of the old heroic poets were celebrated in the best ages; and to rival the plots must certainly have been found an easier task than to equal, far less excel, the poetry of the Homeric epics. Some attempt of this sort might at least have been expected; and what the lowest poetaster now does first, and sometimes does best, could not certainly exceed the powers of Hesiod and the authors of the *Theogonia*. Yet we meet with nothing of the kind. "Quintus Smyrnæus, or Calaber," says Mr Coleridge, "composed his books as a supplement to the unfinished *Iliad*. We may not rate Quintus very highly as a poet; but have we any right to set him down for such a heavy fool as to have ventured upon the completion of a divine poem, which Aristotle had declared absolutely perfect in its plot, if the numerous examples of former writers of supplements had not been lying before his eyes? Suppose, for a moment, that the *Iliad* handed down to us had ended, as surely it might have ended, in the death of Hector, and the return of Achilles in triumph to the Grecian camp; and that the substance of the last two books had been added by Quintus in the beginning of his supplement; should we have commended him the more for sagaciously detecting the want of finish, and the premature termination of the narrative? And is it not possible that Aristotle might have lauded the plot of the *Iliad* nothing the less, if the catalogue of the ships and troops had never been inserted?"

Upon the whole, then, Homer, according to this hypothesis, was the ideal or heroic character of the Greek people, relating its own history. This is the general deduction from all the reasonings of Wolf and his followers, who contend that every thing which is absurd and improbable in Homer, as hitherto conceived, becomes appropriate and even necessary in the Homer thus supposed. 1. In reference to the uncertainty respecting the country of Homer, they observe, that if the people of Greece contended amongst themselves for the honour of having given birth to him, and if all claimed him as a citizen, it was because they were themselves Homer. 2. The poverty and blindness of Homer were those of the rhapsodists, who, being blind (whence their Ionian name of *ῥαψοδοί*), had the more powerful memories. 3. Homer composed the *Iliad* in his youth, that is to say, in the infancy of Greece, when she was all burning with sublime passions, with pride, resentment, and revenge. Greece, therefore, in her infancy, would admire

¹ Maroncelli nel suo sotterraneo avea composti molti versi d'una gran bellezza. Me li andava recitando, e ne componeva altri. Io pure ne componeva, e li recitava. E la nostra memoria esercitavasi a ritenere tutto ciò. Mirabile fù la capacità, che acquistammo di poetare lunghe produzioni a memoria, limarle e tornarle a limare infinite volte, e ridurle a quel segno medesimo di possibile finitezza che avremo attenuto scrivendo. Maroncelli compose così a poco a poco, e ritenne in mente parecchie migliaia di versi lirici ed epici. Io feci la tragedia da Leoniero da Dertona e varie altre cose." (*Le mie Prigioni*, c. 75.)

Homer. Achilles, the type or hero of force. 4. But Homer composed the *Odyssey* in his old age, when the passions of the Greeks began to be cooled by reflection, the mother of prudence. Greece would, therefore, naturally admire Ulysses, the type or hero of wisdom. In the youth of Homer, the pride of Agamemnon, the insolence and violence of Achilles, pleased the Greeks; in his old age they had begun to take pleasure in the delights of Calypso, the voluptuousness of Circe, the songs of the Sirens, and the sports of the suitors of Penelope. 5. The individual character of Homer having thus disappeared, the poet, or rather the poetry, becomes at once justified from all critical censures respecting the lowness of the thoughts, the grossness of the manners, the barbarism of the comparisons, the idioms, the licenses of versification, the discrepancy of dialects, and finally, for having elevated men to the rank of gods, and degraded gods below the level of men. 6. To Homer is assigned the privilege of having alone possessed the faculty of inventing the poetical fictions of Aristotle and the heroic characters of Horace; the privilege of an incomparable eloquence in his savage similes, his terrible pictures of the dying and the dead, and his sublime delineation of the passions, with the merit of a style at once simple, grand, and picturesque. All these qualities belonged to the heroic age of Greece. 7. Homer is henceforth assured of three immortalities; of having been the founder of civilisation in Greece, the father of all the other poets, and the source of the different systems of philosophy afterwards promulgated in his country; titles which could not possibly belong to Homer such as the world has hitherto imagined him. The Homer of the schools could not be regarded as the founder of Greek civilisation, because, from the epoch of Deucalion and Pyrrha, that civilisation had been commenced by the institution of marriage. He could not be regarded as the father of poets, because Orpheus, Amphion, Linus, and Musæus, to whom some chronologers add Hesiod, had flourished before his time. According to Cicero, there were many heroic poets prior to Homer; and Eusebius names Philammon, Thamyris, Demodocus, Epimenides, Aristeas, and others. Nor, finally, could he be the source of the Greek philosophy; for the philosophers did not derive their doctrine from, but engrafted them upon, the Homeric fables. Homer only afforded to the philosophers an occasion of meditating on the highest truths of metaphysics and morals, giving them, in addition, great facility in illustrating their speculations.¹

The more we read the more we admire the two immortal poems of Homer, and the less are the generality of persons inclined to doubt that they were conceived by one and the same mind; whilst the infinite art by which the innumerable parts are connected and arranged forms perhaps the most remarkable feature in the *Iliad* and *Odyssey*, as well as the best argument for the unity of their authorship, and the individuality of Homer. In these poems, according to Mr Milman, "there is nothing of the elaborate art of a later age; it is not a skilful compiler arranging his materials so as to produce the most striking effect; the design and the filling up appear to be evidently of the same hand; there is the most perfect harmony in the plan, the expression, the versification; and we cannot, by any effort, bring ourselves to suppose that the separate passages, which form the main interest of the poem, the splendid bursts, or more pathetic episodes, were originally composed without any view to

their general effect; in short, that a whole race of Homers struck, as it were by accident, all these glorious, living fragments, which lay in a kind of unformed chaos, till a later and almost mightier Homer commanded them to take form, and combine themselves into a connected and harmonious whole."² Another circumstance to which the advocates of the unity and authorship of Homer attach very great importance, is the perfect consistency of the characters in the different parts of the poem. It is quite inconceivable, they think, that there should have been a sort of conventional character assigned to different heroes by the minstrels of Greece. "To take Mr Coleridge's illustration of the ballads on Robin Hood," says Mr Milman; "in all these, bold Robin is still the same frank, careless, daring, generous, half-comic adventurer: So Achilles may have been by prescription,

Impiger, iracundus, inexorabilis, acer;

Ajax heavy and obstinate, Ulysses light and subtle; but can we thus account for the finer and more delicate touches of character, the sort of natural consistencies, which perpetually identify the hero, or even the female, of one book, with the same person in another?"

Some of those persons who have written upon the same side of the question as Mr Milman, and indeed Mr Milman himself, are inclined to doubt whether the poems of Homer, consistent and harmonious as they now appear, could have been preserved by tradition alone; and an able French critic has condemned the opinion "qui, en admettant qu'Homère soit l'auteur de l'*Illiade* et de l'*Odyssée*, veut qu'il en avait jamais écrit un seul vers, et que restés, en dépôt, dans sa mémoire, il les allait réciter de ville en ville, afin d'obtenir de la pitié et de l'admiration publique, les secours que sollicitait sa profonde indigence. Supposer," adds the same writer, "que la tradition orale a seule conservé deux poèmes aussi étendus, pendant le long espace de temps écoulé entre Homère et les premières éditions connues; attribuer aux rhapsodes une portion considérable de ses ouvrages, c'est franchir toutes les bornes d'une critique raisonnable. Comment se flatter, d'ailleurs, d'avoir fait une découverte échappée aux critiques de l'antiquité les plus célèbres, et qui ont apporté un soin si religieux à la révision des poèmes d'Homère, depuis Aristote jusqu'à cet Aristarque, dont le nom est devenu synonyme de critique par excellence?" All this, however, seems to be more plausible than sound. For, in the first place, if the art of writing was unknown in Greece in the age of Homer, or at least confined to carving on wood, or engraving on stone or metal, it follows that, for a certain period, the poems of Homer must have been preserved by oral tradition, because there practically existed no other method by which they could be handed down from one age to another. If it be impossible that two poems so extensive could have been preserved by oral tradition, then it is at least equally so that they could have been composed at the period to which they are commonly referred. Secondly, it is no argument whatever against a discovery in criticism to tell us that, if it were well founded, it could not have escaped the most celebrated critics of antiquity, from Aristotle to Aristarchus, who had applied themselves, with religious care, to the revision of Homer. This kind of argument, if sound, would cut down almost every discovery. Bacon discovered and explained the method of reasoning by induction, which had escaped

¹ To the praise here bestowed on Homer, may be subjoined that of having been the most ancient historian of paganism who has come down to our times. "His poems," says Mr Coleridge, "are two great treasure-houses, in which the manners of the first ages of Greece are preserved. But the lot of the Homeric poems has been similar to that of the laws of the Twelve Tables. On the one hand, the world has ascribed those laws to the Athenian legislator, from whom, it is said, they passed to Rome, whilst no one has seen in them the history of the common law of the heroic tribes of Latium; on the other, the world has believed the poems of Homer to have been the work of the rare genius of an individual, instead of discovering in them the history of the common law of the heroic people of Greece." (*General Introduction*, p. 98.)

² *Quarterly Review*, xlv. p. 164.

Homer. Aristotle and all his successors; Newton discovered the law of gravitation, which, in its application to explain the motions of the heavenly bodies, and connect the whole solar system, had never been so much as suspected even by the most illustrious of his predecessors; Young, with rare sagacity, found out the method of interpreting the Egyptian writings, monumental and civil, which so many persons had, through a long tract of ages, sought for in vain. But were it now to be said, in objection to these discoveries, as M. Durivier has said in opposition to the hypothesis of Wolf and his followers, how could their authors flatter themselves with having found out what so many illustrious men had failed to discover? the answer would be, that each of these discoveries must be judged of by the direct evidence produced in support of it; that the increase of knowledge is progressive; and that, with regard to the particular case in question, the science of criticism is, in a great measure, one of modern growth.

To this succinct analysis of the different opinions entertained respecting Homer, succeeds naturally the critical history of his works. He had composed, or at least the ancients attributed to him, a large number, of which a catalogue may be found in the *Bibliotheca Græca* of Fabricius, and in the *Chrestomathia* of Proclus. Of the greater part there remain only the titles, about which even the learned are not always agreed. We should doubtless have little to regret in the loss of the *Batrachomyomachia*, a burlesque production, in which, with the exception of some details and verses, we find no traces of the genius and style of Homer; or in that of the Hymns, which are twenty-four in number, amongst which two or three have been supposed to belong to Homer. On this subject the reader may consult two critical letters of Rhunken, in his second edition of the Hymn to Ceres, Leyden, 1782; Mitscherlich, Ilgen, Matthiæ, and Hermann, have also published editions of these Hymns, which are valuable for the critical accuracy of the text, and the conjectures as to their supposed dates and authors. The epigrams and smaller poems bear no stamp of authenticity, and hence we may dispense with entering into any particular statement concerning them. It is in the Iliad and the Odyssey alone where we must seek for, and where we will find, the genius of Homer in all its force, and in all its splendour and originality.

If we can credit the statements of Ælian and Plutarch, it was Lycurgus, the celebrated Lacedæmonian lawgiver, who first collected, in Ionia, the scattered fragments of the poems of Homer, united them together, and introduced them into the Peloponnesus. But the glory of arranging them in the order in which they have reached us was, it seems, reserved for Pisistratus, who brought them to Athens, and for his son Hipparchus, who ordained that they should be recited annually during the Panathenaic festival. This fact, related in the *Hipparchus*, a dialogue attributed to Plato, is confirmed by the authority of Cicero, who concedes to Pisistratus, seconded by the poet-philosopher Solon, the merit of having put into order the verses of Homer, which he found in a state of confusion. After the edition of Hipparchus may be mentioned that which Aristotle revised by the advice of Alexander, and which the conqueror, an enlightened friend of letters, deposited in the precious casket which he had found amongst the treasures of Darius. But notwithstanding the authority of Plutarch, who sometimes placed too much reliance on memoirs evidently unworthy of confidence, this famous edition of the casket had, according to Strabo, been revised by Calisthenes and Anaxarchus, and was only presented to Alexander by his illustrious instructor. It is possible, however, that a second revision, enriched with the remarks of Aristotle himself, may have been made under the eyes of the Macedonian conqueror. Before Aristotle, Cynethus of Chios, Stesimbrotus, Theagenes,

and Antimachus of Colophon, had already undertaken to comment on the text of Homer. The scholia of Venice, published by the learned Villoison, leave no doubt whatever as to this fact. We have not the same certainty respecting the editions of Cassander king of Macedonia, and Ptolemy Evergetes II. king of Egypt, whatever may have been said by Athenæus, Casaubon his learned interpreter, and the second Burmann. But it was the school of Alexandria which began to give truly classical editions of the works of Homer; Zenodotus of Ephesus, Aristophanes of Byzantium, Aristarchus, and Crates, occupied themselves not only with the revision, but also with the critical explanation, of the text; and Aristarchus is said to have first divided the Iliad and the Odyssey each into twenty-four books, a division which appears so natural and judicious that it has been constantly adopted ever since. So much for the Greek editors of Homer; let us now pass on to his interpreters.

At their head stands Didymus, a grammarian of Alexandria, who flourished under the reign of Augustus. He had enriched several poems with his commentaries; but the scholia on the Iliad and Odyssey printed with his name are evidently not his, and are neither of the same epoch nor by the same hand; in fact, he is often cited in them himself, and mention is made of writers who flourished at a subsequent period. With regard to their literary merit, the remarks, purely grammatical, are only simple glosses on the text; but those which relate to the subject-matter are not without ability, and may be consulted with advantage. This compilation, extracted partly from Didymus, and partly from various other commentators whose names are not mentioned, contains what are usually called the *lesser scholia*. Those on the Iliad were published, for the first time, at Rome, in 1517, folio, and those on both poems united, at Venice, in 1528, in two vols. 8vo. Soon afterwards, that is, from 1542 to 1550, appeared the great work of Eustathius on Homer, which was printed at Rome, in four vols. folio, and included the beautiful table of Devaris. This work, which is merely a compilation from the scholiasts and commentators who had preceded the learned archbishop of Thessalonica, presents nevertheless an immense repertory of literary and grammatical erudition. But it could have been wished that a more severe criticism had directed this vast compilation, or that an able and practised hand had made from it a judicious extract, which might have put into circulation riches almost unknown, or only accessible to the small number of persons who are profoundly skilled in the Greek language. The same observation may be applied to the valuable scholia discovered and published at Venice by Villoison.

We shall not attempt here to give a detail of the numerous editions of Homer. His works complete, including the Iliad, the Odyssey, the *Batrachomyomachia*, and the Hymns, were printed for the first time at Florence, in 1488, in two vols. folio, under the superintendence of Demetrius Chalcondylas, assisted by another Demetrius from the island of Crete. The printer, Bernardo Nerli, dedicated the collection to Pietro, son of Lorenzo de' Medicis. This rare and precious edition was faithfully reproduced, with a few corrections, in 1504, by the Aldine presses, at Venice, in two vols. 8vo. But the second Aldine edition of 1517 presents sensible differences in the text, which the subsequent editions reproduce, till that of 1528 inclusively. This is what may be called the first age of the editions of Homer. The second dates from Henri Etienne, who, with the assistance of an ancient manuscript, and the commentaries of Eustathius, collected a certain number of various readings, which he gave upon the margin, or developed, along with his own conjectures, in the notes of his beautiful work entitled *Poetæ Græci principes Heroici*

Homer.

Homer. *Carminis*, Paris, 1566. With Barnes the Hellenist, who was celebrated in his own time, but whose reputation must necessarily diminish with the progress of philological criticism, commences a third epoch, which may be denominated that of Clarke, or perhaps of Ernesti, who improved upon the labours of Clarke, as Clarke had improved upon those of his predecessor Barnes. But he did not dissemble that his edition still left much to be desired; and he modestly admitted that he had only prepared materials for future editors. Such an editor as Ernesti appears to have contemplated was found in the person of Wolf, who, in 1784 and 1785, published at Halle, in Saxony, a complete edition of Homer, the superiority of which, in regard to correctness, was soon generally acknowledged. This edition was distinguished for an exact and severe revision of the text; and in it the learned professor had already announced the system afterwards developed and adopted by him, when Villoison published his famous edition of the *Iliad*, in folio, Venice, 1788. This edition occupies too important a place in modern philology, and, as some think, concerns too deeply the glory of Homer individually, to be passed by with a simple notice, or without entering into some details. Villoison was busily occupied at Venice with the publication of his *Anecdota Græca*, when, by accident, he discovered, in the library of St Mark, a manuscript of Homer, which, in his judgment, belonged to the tenth century, and was consequently anterior by two hundred years to the Commentaries of Eustathius. This manuscript contained the *Iliad* entire, accompanied with an immensity of scholia, abridged from those of Zenodotus, Aristophanes, Aristarchus, Crates Mallotes, Ptolemy of Ascalon, and several other celebrated grammarians. But that which particularly struck him, was observing the margins filled with asterisks, daggers, and all the different signs adopted to distinguish verses supposed to have been altered or transposed, from those the authenticity of which was universally recognised. The publication of the work did not fail to realise the great hopes which the learned of Europe had conceived from its mere announcement, and the success of the edition was complete. But it confirmed Wolf more than ever in the opinion that it was to the critics of Alexandria that recourse must be had in order to recover and reconstitute the true text of Homer; and, fortified by the new proofs of the truth of his assertion which he conceived to have under his eyes, he ably profited by the assistance which these ancient scholia afforded him, and made no difficulty in substituting for the ordinary readings of the text the variations which appeared to him to be demonstrated. Thus, by a singular chance, the beautiful monument elevated to the glory of Homer by one of the most famous Hellenists of his age, became the basis of a system calculated to deprive Homer of the admiration which, for ages, had been lavished on him. Villoison was so much affected by this circumstance that he repented of having ever published his *Iliad*. That of Wolf, accompanied with the *Odyssey* and the *Hymns*, re-appeared at Leipsig in 1804, in four vols. small 8vo. This edition adds to its other merits that of a typographical execution which does much honour to the press of M. Goschen. The edition of the *Iliad* by Heyne, in eight vols. 8vo, which appeared at Leipsig in 1802, has not completely justified the expectations which might have been entertained of such an editor. His principal merit consists in presenting a clear and exact interpretation of the text, and in collecting, in the *Excursus* and *Commentaries* which accompany it, all that is important to be known for the perfect understanding of Homer. The doctrine of Heyne on the *spirits* rough and smooth (*asper et lenis*), which, according to him, were much more strongly aspirated in the time of Homer, and pronounced like the *Æolic* digamma, has met with more adversaries

than partisans; although it explains very well how certain syllables, naturally short, become long at the end of a word, when the following one begins with a vowel, and causes to disappear the hiatuses which are of so frequent occurrence in the verses of this great poet.

From the commencement or towards the middle of the sixteenth century, Homer was translated into prose and verse amongst the Italians, the English, the French, the Spaniards, and other nations; but we shall only notice those versions which occupy a place more or less distinguished in literature. In Italy the most esteemed are those of Salvini, Cerutti, Cesarotti, and Monti; Salvini, however, translated all that remains of Homer, but the others confined themselves to the *Iliad*. In England, the translation of Pope threw into the shade those of Chapman, Ogilvy, and Hobbes; but many, nevertheless, prefer to it that of Cowper, as more exact, and preserving better the simple and natural colour of the original; whilst some are of opinion that the recent version of Sotheby, the accomplished translator of Wieland's *Oberon* and Virgil's *Georgics*, is, in several respects, superior to all its predecessors. The French have, in prose, Madame Dacier, Bitaubé, Lebrun, and Dugal-Montbel, each of whom is distinguished for some particular merit. Of the French translations in verse we shall only notice two; those of Rochefort and of M. Aignan, which are both considered excellent. The Germans attach much importance to the versions of Bodmer, of the Count de Stolberg, brother of the translator of Sophocles, and of Voss, all of whom have translated Homer into hexameter verses; a system of versification which prevailed in that school, and which was applied to the ancients, with what success we shall not venture to pronounce. Spanish literature contains no good translation of Homer. The most recent, and, comparatively speaking, the best, is that of Don Saverio Malo, a gentleman employed in the Royal Library at Madrid.

We shall not expatiate here on the literary merit of the prince of poets. It is too generally known, and too deeply felt, to require any exposition at our hands. Besides, what addition could we hope to make to the admirable Essay of Pope on the Life and Writings of Homer; to the *Discours Préliminaire* of Rochefort; and, above all, to the eloquent eulogium which the Abbé Barthélemy puts in the mouth of the Scythian Anacharsis? The dissertations of Lamotte are also, in their kind, so much more honourable to the author or authors of the *Iliad* and *Odyssey*, that the number and severity of the criticisms contained in them give to the praise a character more solid and less equivocal. The authority of genius is powerful, nay universal. That of Homer has, for thirty centuries, presided over the destinies of almost every literature of the world. It was from the works of the first and greatest of poets that *Æschylus*, *Sophocles*, *Euripides*, and others, derived not only the subjects of their tragedies, but the spirit and sentiments by which these are animated, and the varied charms of that style of which Homer possessed the secret, and left them a model. It was to his genius that the epic poets, as *Virgil* and *Tasso*, were indebted for their sublime beauties; it was from his works that the greatest artists of ancient and modern times borrowed their finest conceptions; and both are the more elevated in proportion as they approach nearer to their great model. In a word, as Homer has been denominated *κατ' ἔξοχην, the Poet*, so the expression *Homeric beauties*, having passed into a proverb, has become amongst men of letters the appropriate qualification of the grand and the beautiful in poetry.

(Besides the works already quoted, see *Biographie Universelle*, art. HOMERE; Chalmers's *Biog. Dictionary*, art. HOMER; Blackwell's *Inquiry into the Life and Writings of Homer*, second edition, London, 1786, in 8vo; and Wood's *Essay on the Original Genius and Writings of Homer*, London, 1775, in 4to.) (A.)

Homicide HOMER, *Omer*, or *Chomer*, a Jewish measure, containing the tenth part of the ephah. See CORUS and MEASURE.

HOMICIDE signifies in general the taking away of the life of a human being. It is of three kinds; *justifiable*, *excusable*, and *felonious*. The first has no share of guilt at all; the second very little; but the third is the highest crime against the law of nature that man is capable of committing. See PENAL JURISPRUDENCE.

HOMILY, in ecclesiastical writers, a sermon or discourse upon some point of religion, delivered in a plain manner, so as to be easily understood by the common people. The word is Greek, *ὁμιλία*, formed from *ὁμιλεω*, *cœtus*, assembly or council.

The Greek homily signified a familiar discourse, like the Latin *sermo*; and discourses delivered in the church took these denominations, to intimate that they were not harangues or matters of ostentation and flourish, like those of profane orators, but familiar and useful discourses, such as those of a master to his disciples, or of a father to his children.

All the homilies of the Greek and Latin fathers were composed by bishops. We have none of Tertullian, Clemens Alexandrinus, and many other learned persons, because, in the first ages, bishops alone were admitted to preach. The privilege was not ordinarily allowed to priests till towards the fifth century. St Chrysostom was the first presbyter who preached regularly. Origen and St Augustin also preached, but it was by a peculiar license or privilege.

Photius distinguishes a *homily* from a *sermon* by this, that the homily was performed in a more familiar manner, the prelate interrogating and talking to the people, and they in their turn answering and interrogating him, so that it was properly a conversation; whilst the sermon was delivered with more form, and in the pulpit, after the manner of the orators.

The practice of compiling homilies, which were to be committed to memory, and recited by ignorant or indolent priests, commenced towards the close of the eighth century, when Charlemagne ordered Paulus Diaconus and Alcuin to form homilies or discourses upon the Gospels and Epistles, from the ancient doctors of the church. This gave rise to the famous collection entitled the *Homiliarium of Charlemagne*, which being followed as a model in many productions of the same kind, composed by private persons, from a principle of pious zeal, contributed much, according to Mosheim, to nourish the indolence and to perpetuate the ignorance of a worthless clergy.

There are still extant several fine homilies, composed by the ancient fathers, particularly by St Chrysostom and St Gregory.

Clementine HOMILIES, in *Ecclesiastical History*, are nineteen homilies in Greek, published by Cotelierius, with two letters prefixed; one of them written in the name of Peter, the other in the name of Clement, to James bishop of Jerusalem, in which last they are entitled Clement's Epitome of the Preaching and Travels of Peter. According to Lelclerc, these homilies were composed by an Ebionite in the second century; but Montfoucon supposes that they were forged long after the age of Athanasius. Dr Lardner apprehends that the Clementine homilies were the original or first edition of the Recognitions; and that they are the same with the work censured by Eusebius under the title of Dialogues of Peter and Appian.

HOMOGENEOUS, or **HOMOGENEAL** (composed of the Greek words *ὁμος*, *like*, and *γενος*, *kind*), is a term applied to various subjects, to denote that they consist of similar parts, or of parts of the same nature and kind; in contradistinction to *heterogeneous*, where the parts are of different natures or kinds.

HOMOLOGATION, in the civil law, the act of con-

firmiting or rendering a thing more valid and solemn, by publication, repetition, or recognition thereof. The word comes from the Greek *ὁμολογία*, *consent* or *assent*, formed from *ὁμος*, *similis*, like, and *λογος*, from *λεγειν*, *dicere*, to say; that is, to say the same thing, to consent or agree.

HOMOLOGOUS, in *Geometry*, an appellation given to the corresponding sides and angles of similar figures.

HONDEKOOTER, MELCHIOR, a Dutch painter, born at Utrecht, who excelled in painting animals, and especially birds. His father and grandfather were of the same profession, and their subjects the same. He was trained to the art by his father; but surpassed him, and even the best of his contemporaries. Till he was seventeen years of age he continued under the direction of his father, and accustomed himself to paint different sorts of birds; but he took particular pleasure in representing cocks, hens, ducks, chickens, and peacocks, which he described in an elegant variety of actions and attitudes. After his father's death, which happened in 1653, he received some instructions from his uncle John Baptist Weeninix; but his principal and best instructor was nature, which he studied with intense application. His pencil was neat and delicate; his touch light; his colouring natural, lively, and transparent; and the feathers of his fowls were expressed with a swelling softness, which might have readily and agreeably deceived the eye of any spectator. It is reported that he had trained up a cock to stand in any attitude he wanted to describe, and that it was his custom to place that creature near his easel, so that at the motion of his hand the bird would fix itself in the proper posture, and would continue in that particular position without the smallest perceptible alteration for several hours at a time. The landscapes which he introduces as the backgrounds of his pictures are adapted with peculiar judgment and skill, and admirably finished; they harmonize with his subject, and always increase the force and the beauty of his principal objects. He was very happy in imitating the natural plumage of the fowls he painted; which not only produced a charming effect, but may also assist an intelligent observer in determining which are the genuine works of this master, and which the impositions. He died at Utrecht in 1695, aged fifty-nine.

HONDURAS, a settlement of Great Britain, in the southern part of the North American continent, and province of Yucutan. It is situated between the parallels of 17. and 19. north latitude, and 88. and 90. west longitude, on a peninsula which forms the Bay of Campeachy on the west and the Bay of Honduras on the east. Its name is derived from the Spanish term *Hondura*, which signifies depth, and was originally given to the coast by its discoverers, on account of the great depth of water along the shore. According to the best geographical authorities, the line which embraces this settlement commences at the mouth of the Rio Grande, or Hondo, whose course it at first follows, and afterwards runs parallel with it for thirty miles. It then turns south, and passes through the New River Lake, in a straight line, to the river Balize, up which it ascends for a considerable distance, till again bending in a southerly direction, it meets the head of the Libun, whose course it pursues to the sea. The whole settlement embraces an area of 62,750 square miles.

This coast was discovered by Columbus in the year 1502, but little that can be relied upon is known of its early settlement. The abundance and fine quality of the wood, particularly mahogany and logwood, seem first to have drawn attention to it; and at a pretty early period it was occasionally resorted to by wood-cutters. But the first permanent establishment of British wood-cutters was made at Cape Cartoche, by some adventurers from Jamaica, whose numbers increasing, they extended as far south as the river Balize, and as far west as the neigh-

Homologous
||
Honduras.

Honduras. bourhood of Campeachy. The Spaniards, however, did not quietly submit to this usurpation of their territorial dominion. Several expeditions were fitted out against the settlers, but they were uniformly unsuccessful; and on two occasions, in 1659 and 1678, so complete was their discomfiture, that the town of Campeachy itself was taken by the logwood-cutters, with only the assistance of the seamen engaged in the trade. This last repulse occurred eight years after a treaty had been concluded with Spain, by which the territorial right of Britain to the occupancy of Honduras was generally, although not specifically, embraced. The successes of the settlers aroused the jealousy of the Spaniards, and led to a renewed discussion of their right to the territory which they occupied. This would appear to have been again generally admitted; but the Spaniards finally succeeded in driving the woodmen from the Campeachy shore, and confining them to the limits which we have already defined. An attempt was again made in 1718 to dispossess the British of the territory on the river Balize; but the firmness of the wood-cutters deterred the Castilians from effecting any thing, except the erection of a fortification, which in a few years they abandoned. In 1754 an expedition was undertaken to exterminate the colony; but by a treaty of peace concluded in the year 1763, the Spaniards were compelled to admit the right of occupancy to the British colonists, which, however, they subsequently attempted to annul. In 1779 the Spaniards again attacked the settlement, and after destroying property to a considerable amount, they took a number of the colonists prisoners, and marched them off in irons to Merida, whence they were shipped to the Havannah, and there confined till 1782. In 1784 Britain obtained from Spain a specific grant of "the lands allotted for the cutting of logwood," by which Honduras became as much a territorial occupancy of the British crown, as Jamaica or any other of our colonial possessions. The last attack on the settlement was made during the war in 1798, but the expedition, which consisted of 3000 men, was gallantly repulsed; and since that period the colony has remained undisturbed by foreign aggression.

The coast of the Bay of Honduras is low, and the shore is studded with a number of low islands or keys, which, however, are verdant. As we recede from the coast, the land rises into a bold and lofty country, interspersed with rivers and lagoons, and covered with gigantic forests. The inland frontier is formed by an immense chain of mountains, which are also covered with impenetrable forests and brushwood. Through this rocky barrier there is only one pass, namely, that leading to Peten. It is merely a pathway, which might be defended by a few men. The lagoons or sheets of water, and the falls and rapids of the rivers, constitute sublime and beautiful features in the general aspect of the country. The river and lagoon of Manatee, which is situated ten leagues south of Balize, is considered as extremely grand. At about a mile from the mouth of the river is the lagoon, a magnificent sheet of water, extending for several leagues in a northerly direction. In many places immense mountains ascend from its margin, overtopping large valleys and wood ranges of great extent, where the tiger, antelope, armadillo, quash, opossum, racoon, and several species of deer, abound. Amongst the feathered tribes there are numbers of quails, plovers, pigeons, pheasants, and wild turkeys. The deficiency of streams amongst the mountain ridges is supplied by the presence of large marshy spots or shallow ponds, the banks of which are frequented by almost every

species of water game. Fish abound during a great part of the year in these ponds, but the latter dry up in the season of drought, and then vast flocks of sea-fowl congregate around them to prey upon the fish which have been left dry by the evaporation of the waters. The alligator is also a frequent visitor; and, to partake of this repast thus yearly provided for him, he has been known to traverse trackless wilds, and make long journeys into the interior. Eight or ten miles from the lakes the rapids begin, and the high rocky banks of the river assume a romantic and beautiful appearance. Further on there is a cataract of about a quarter of a mile in length, and of considerable acclivity. A cluster of beautiful caves, through which the river winds its way, and beneath which the traveller must pass, is next reached. They have been described as equally singular and grand:—"These magnificent natural excavations of the mountains are semicircular at the entrance, and about five yards in diameter. Within the cave the arch rises to the height of a hundred feet, and leads to another low arch, which, being passed, a second cavern of large size opens, beyond which is a third with a circular orifice, through which the river enters. During the floods the mouths of the caverns are filled with water, which boils up with prodigious fury, and thus detains travellers many days before they can pass through the caves or tunnels. In the rainy season, as the water increases on the upper or inland sides of the mountains, the river forces its passage through the interstices and openings in its sides with tremendous noise, forming an indescribably grand cascade of from forty to fifty feet high, issuing from an hundred orifices."¹

The country is technically divided into the Pine and the Cahoun ridges. The soil of the former has a substratum of loose reddish sand, and its indigenous products consist of those varieties of vegetation the assimilative powers of which are strong and perennial. Extensive prairies expand over this soil, and the pine, from which it derives its name, is extremely abundant. The soil of the Cahoun ridge consists of a deep loam, capable of growing every species of European as well as of tropical aliment. Its fertility occasions the growth of much brushwood, and it is covered with the wild cotton and other gigantic trees.

Fruits, spontaneously produced, are exceedingly abundant, and consist of oranges of excellent quality, shaddocks, limes, mangoes, melons, pine-apples, water-melons, avocado pears, cashew, cocoa-nuts, and many others. They are all found in the neighbourhood of Balize, but are sometimes brought in large quantities from more elevated plantations. The mahogany and logwood trees are at present the staples of Honduras. The former is found best in elevated situations; and growing generally solitary, it is discernible at a great distance, from the yellow hue of its foliage. It is cut down at about twelve feet from the ground, and when felled, the logs are dragged to the banks of the streams and floated down in rafts. It is said that the boughs and limbs afford the finest wood, but the size is principally looked to in Britain. The logwood is found in low swampy grounds, growing contiguous to fresh water creeks and lakes, on the edges of which the roots, the most valuable part of the wood, ramify. They are felled during the dry season, and carried off when the wet season has laid the ground under water. There is another valuable tree called the *pinus occidentalis*, which grows to the height of sixty feet, and covers many thousand acres of country. It contains an immense quantity of tar and turpentine, and might be turned to good account were the vexatious duties on colonial timber removed. The pine-

¹ "There are also magnificent caves in the river Libun, eight or ten days' journey from Balize; and some interesting caverns exist in the creeks or arms of the old river."

Honduras-wood is of course highly inflammable, and in this respect it is very valuable to the poor, who make torches of it. It likewise powerfully resists decay, and is in consequence much used by builders. The cahoun, or cohoon tree as it is pronounced, is valuable on account of an oil which it yields. This unctuous product, when unadulterated, is almost colourless, destitute of any disagreeable taste, and when burned as a lamp oil it emits a beautiful palish flame without smoke or smell. There are various other kinds of wood of beautiful vein and close texture, such as iron-wood, clay-wood, rosewood, palmaletta, and the like. Amongst minerals, veins of fine marble and mountains of alabaster are known to exist. Several valuable specimens of crystals have been found, and gold has at various periods been detected; but no pains were ever taken to ascertain whence it proceeded. Labouring Creek, which lies on the Balize, about one hundred miles inland, is remarkable for the petrifying properties possessed by its waters. They have also a powerful cathartic effect on strangers, and when applied externally to an ulcer, have a healing property.

The country abounds with all kinds of animals fit for the food of man. Except in very rough weather, the supply of salt-water fish of excellent quality is abundant. The common green turtle, when in a healthy condition, is a staple commodity in the market. It is often five feet long, and weighs from 200 to 250 lbs.

Balize, the capital of the settlement, is divided into two parts by the river of the same name. The part of the town which is situated upon the south or right bank of the river, along the eastern edge of a point of land, is completely insulated by a canal on its western side, which runs across from a small arm of the sea, and bounds the town on its south side. The houses are about 500 in number, and are in general well built, spacious, and even elegant. They are for the most part constructed of wood, and raised ten feet from the ground. The two parts of the town are connected by a bridge, which was built in 1818. It is twenty feet in width, and its span is 220 feet. It is entirely constructed of wood, and is well secured by balustrades on each side. The streets of Balize are regular, running parallel north and south, and intersected by others. The main one runs in a north-easterly direction to the bridge from the government-house, which is situated on the south-east point or angle of the island on the right bank of the river, and bounded on the south and east by the sea. Behind the government-house is the church, on the east side of the main street. The whole town is embowered in groves and avenues of the cocoa-nut and tamarind trees. Fort George is situated about half a mile from the river, on a small low islet.

The climate in the neighbourhood of Balize is generally moist. July is the hottest and driest month of the year, and then the maximum heat is 83°, the medium 82°, and the minimum 80° of Fahrenheit. The great heat, however, is tempered by the sea breezes, which almost constantly prevail. During the wet seasons the thermometer sinks to 60°, and the variation in the temperature is sometimes very great. But the climate is by no means unhealthy; indeed it is asserted in the Honduras Almanack that it is more favourable to European constitutions than any other climate under the tropics. Where temperance and regularity are observed, the average duration of human life will not be less in Honduras than it is in this country.

There are various classes of society in this settlement, including Europeans, coloured people, Indians, and Mosquito men. The blacks of Honduras are distinct from the aborigines of the country, being of African descent. In general they are inclined to indulge those low propensities which are exhibited in a state of barbarism. A few of

them, either from national usage or other causes, show an utter aversion to spirituous liquors, but by far the greater proportion are guilty of the most beastly excesses in this respect. Having been derived from various regions, they still retain all their national peculiarities; and, to keep themselves distinct from every other tribe, each nation selects one individual, on whom the rest of his people bestow the title of king, and who exercises over them a certain degree of authority. The blacks, as a body, have upon the whole little intelligence, and their dulness of comprehension is remarkable. It is asserted, however, in the Honduras Almanack, the best authority on this point, that some of the blacks exhibit an originality of talent and a degree of mental activity little inferior to their European brethren. They are much attached to their country, and with a native of his own land a Honduras black will share his last plantain. The coloured population has resulted from the intercourse of Europeans with Africans or Indians. They of course, morally speaking, assume a medium status, and partake more or less of the qualities of black and white, according to their distance from either. The Mosquito shore men abound in the colony. They are remarkable for a fine muscular formation of body, but in their countenances they exhibit an utter destitution of intelligence, and their habits are most barbarous. They acknowledge the existence of a good and evil spirit; and the little power of thought which they possess is displayed in their conduct towards their deities. The good spirit is neglected, because, say they, his goodness is so great that nothing is to be feared from his wrath, whilst, on the other hand, the evil spirit is propitiated, in order to deprecate his malevolence. The whole wealth of a Mosquito man consists in his canoe, paddle, and harpoon. With these he satisfies the cravings of nature, and his grovelling nature asks for no more. The Indians, the real aborigines of the place, are a timid, inoffensive race, apparently more under the influence of instinct than of reason. They perform the most astonishing journeys through woods as trackless as the sea, and impervious to all but themselves, with infallible correctness of direction and amazing rapidity. Although free from vindictive or malicious propensities, they are addicted to drunkenness to an excessive degree.

In religious matters Honduras forms part of the bishopric of Jamaica, and facilities are afforded by the establishment for religious instruction. There is a well-endowed school attached to it, conducted on the Madras system, and the average daily attendance of children is above a hundred. There are likewise two mission schools, and considerable benefit has already been reaped from these institutions. Not one of the least is the change of sentiment which has taken place with regard to marriage. Only a few years back this ceremony was little regarded, and virtue and decency were absolutely despised. A better feeling, however, is now beginning to prevail, of which the legislature has taken advantage; and, for the encouragement of public morals, great facilities to the marriages of the lower orders of blacks have been afforded by recent laws and regulations. Petty larceny, and misdemeanours resulting from intemperance, frequently occur; but atrocious crimes are happily seldom perpetrated. In the mechanical arts the blacks display little or no ingenuity, but the coloured people, approaching nearer to the European standard of mind, are considerably above the negroes in this respect. In architectural designs, however, and other arts by which domestic comforts are enhanced, the whites alone are to be depended upon. Some years back the inhabitants of Honduras were content with stoccarded huts of the most primitive construction, but now there are many large, commodious, and even elegant houses, particularly in Balize.

The grand authority of the settlement is a mixed legis-

Honduras. legislative and executive power, designated the Magistrates of Honduras, by whom enactments are made; and these become laws to be enforced by the executive part of the government, after they have been sanctioned by the king's representative. The magistrates are in number seven, and annually elected by the inhabitants. In them the power is vested, and they conduct the whole public business of the colony, without receiving any remuneration for their services. The superintendent is of course a nominee of the crown of Great Britain.

The militia of Honduras, which is a thousand strong, consists of a brigade of artillery and a regiment of the line; there is likewise a local maritime force, the whole being under the command of the superintendent and his aides-de-camp and staff. The following table exhibits the revenue and expenditure of Honduras from 1807 till 1830.

	Revenue.	Expendi- ture.		Revenue.	Expendi- ture.
1807	£7,566	£8,291	1819	£15,967	£16,896
1808	6,005	5,170	1820	17,249	17,266
1809	6,829	6,066	1821	12,306	12,027
1810	9,523	9,604	1822	14,831	14,296
1811	8,643	8,981	1823	19,294	20,112
1812	6,590	6,312	1824	14,125	14,163
1813	5,438	5,548	1825	17,594	17,634
1814	5,474	5,629	1826	13,256	13,755
1815	12,944	12,527	1827	17,415	17,562
1816	10,672	9,276	1828	10,653	10,760
1817	8,168	8,838	1829	11,744	11,759
1818	16,501	18,193	1830	15,673	15,806
Total,	104,353	104,435	Total,	180,107	182,036

It will be perceived that the revenue of this colony has very materially increased, and it would still increase were the interest of this settlement more attended to at home. Its resources are very great, and were emigration properly encouraged, it would soon become of vast importance both in a political and in a commercial point of view, more especially as there are still uncultivated many thousand square miles of the richest soil. Trade is yet in its infancy, but the value of the imports in 1830 was L.234,379, and of the exports L.316,151, employing a shipping inwards of 13,918 tons, and outwards of 16,351 tons, independently of a large coasting trade, which is on the increase. The following table exhibits the quantities of the principal articles exported from 1824 to 1830.¹

Years.	Mahogany.	Cedar.	Indigo.
	Feet.	Feet.	Lbs.
1824	5,573,819	2,493	199,867
1825	5,083,170	21,000	211,447
1826	6,385,589	30,171	358,552
1827	6,904,998	19,781	81,767
1828	5,466,806	...	1,610 leeroons.
1829	4,631,391	912	1,474
1830	4,556,986	...	2,650

Much discrepancy prevails amongst authorities relative to the numbers of the inhabitants. The following table exhibits the aggregate population of Honduras from 1823 to 1830.

Years.	White and Free Coloured.		Slaves.		Total.	
	Males.	Females.	Males.	Females.	Males.	Females.
1823	842	798	1654	814	2496	1612
1826	1896	891	1606	804	3502	1695
1829	1596	920	1329	798	2925	1718
1830	937	919	1347	680	2284	1599

It is almost superfluous to observe, that here, as in all our other colonies, the name of slave has ceased to designate a subject of the British empire. (R. R. R.)

HONE, a fine kind of stone, used for setting razors, pen-knives, and other cutting instruments.

HONEY, a sweet vegetable juice, collected by the bees from the flowers of various plants, and deposited in the cells of the honey-comb. See **BEE**.

HONFLEUR, a maritime city of France, in the arrondissement of Pont l'Eveque and department of Calvados. It is an ill-built town, situated on the Seine, opposite to Harfleur. There are four churches, 1027 houses, and 9780 inhabitants, who subsist partly by the fishery, and carry on some manufactures of vitriol, of alum, and of lace. The herring fishery is the most extensive. Before the Revolution it was the principal place for the Newfoundland fishery and for the colonial commerce. Long. 0. 3. E. Lat. 49. 17. N.

HONDSCHOOTE, a town of France, in the arrondissement of Dunkirk, in the department of the North. It stands on the canal leading from Bergues to Furnes, contains 539 houses, and 3168 inhabitants. It is remarkable on account of the battle fought there in 1793, when the Duke of York, with the combined armies, advanced to take possession of Dunkirk, and was defeated by the French under the command of General Houchard.

HONITON, a market-town of the hundred of Axminster, in the county of Devon, 159 miles from London. It consists of one long street, on the great road from the metropolis to Exeter. It has suffered by frequent fires, and good houses have been constructed instead of those which were burned. The parish church is half a mile from the town, but there is a chapel of ease within it. It is an ancient burgh, and still returns two members to parliament, who are chosen by about five hundred voters. It had formerly considerable trade in making serges, but that has of late years greatly declined. Some employment for females is provided, by making thread lace; and none is more highly esteemed than that which bears the name of this place. There is here a well-attended market on Saturday. The population amounted in 1801 to 2377, in 1811 to 2735, in 1821 to 3296, and in 1831 to 3509.

HONORIACI, in *Antiquity*, an order of soldiery under the eastern empire, who introduced the Goths, Vandals, Alani, Suevi, and other tribes, into Spain. Didymus and Verinianus, two brothers, had, with great vigilance and valour, defended the passages of the Pyrenees against the barbarians; but being at length killed, the emperor Constantius appointed to defend those passages the *honoriaci*, who, not contented with laying them open to all the nations of the north then ravaging the Gauls, actually joined the spoilers.

HONOUR, a testimony of esteem or submission, expressed by words, actions, and an exterior behaviour, by which we make known the veneration and respect we en-

¹ The tables given above, and much other information, have been derived from Mr Montgomery Martin's work on the British colonial possessions, to which the reader is referred for more minute details regarding this settlement.

Honour. *Honour* is certain for any one on account of his dignity or merit. The word *honour* is also used in general for the esteem due to virtue, glory, and reputation. It is further employed to signify virtue and probity themselves, and an exactness in performing whatever we have promised; and in this last sense we use the term *a man of honour*. But *honour* is more particularly applied to two different kinds of virtue; bravery in men and chastity in women. Virtue and Honour were deified amongst the ancient Greeks and Romans, and had a joint temple consecrated to them at Rome; but afterwards each of them had separate temples, which were so placed that no one could enter the temple of Honour without passing through that of Virtue; and by this the Romans were continually put in mind that virtue is the only direct path to true glory. Plutarch tells us, that the Romans, contrary to their usual custom, sacrificed to Honour uncovered; perhaps to denote, that wherever honour is, it wants no covering, but shows itself openly to the world.

HONOUR, or Rank. The degrees of honour which are observed in Britain may be comprehended under these two heads; *nobiles majores*, and *nobiles minores*. Those included under the first rank are, archbishops, dukes, marquises, earls, viscounts, bishops, and barons, which are all distinguished by the respective ornaments of their escutcheons; and those of the second are baronets, knights, esquires, and gentlemen. There are some authors who pretend that baronets are the last under the first rank; and their reason is, because this honour is hereditary, and by patent, like that of the nobility.

HONOURS of War, in one sense, are stipulated terms, which are granted to a vanquished enemy, and by which he is permitted to march out of a town, from a camp or line of intrenchments, with all the pomp and circumstance of military array. In another sense, the honours of war mean the compliments which are paid to great personages or military characters, when they appear before a body of armed men. The former, however, is the most common acceptance; and with respect to it we may observe here, that it is extremely difficult to describe the honours of war specifically, as almost every thing depends on the general by whom a capitulation is granted. In some instances the troops of a besieged garrison are permitted to march out with arms shouldered, drums beating, colours flying, and all or part of their baggage; in others, they are only allowed to advance silently in front of their works, ground or pile their arms, face to the right, and return within their intrenchments. To give examples on a matter so plain must be altogether superfluous.

Military Honours. All armies salute crowned heads in the most respectful manner, drums beating a march, colours and standards dropping, and officers saluting. Their guards pay no compliment, except to the princes of the blood, and even that by courtesy, in the absence of crowned heads.

To the commander-in-chief the whole line turns out without arms, and the camp-guards beat a march, and salute. To generals of horse and foot, they beat a march, and salute; to lieutenant-generals, three ruffles, and salute; to major-generals, two ruffles, and salute; to brigadiers, rested arms, one ruffle, and salute; to colonels, rested arms, and no beating. Sentinels rest their arms to all field officers, and shoulder to every officer. All governors who are not general officers, in all places where they are governors, have one ruffle, with rested arms; but for those who have no commission as governors, no drum beats. Lieutenant-governors have the main-guard turned out to them with shouldered arms. The master-general of the ordnance has the same respect and honours paid to him as the generals of cavalry and infantry.

HONOUR-Point, in *Heraldry*, is that next above the cen-

tre of the escutcheon, dividing the upper part into two equal portions. See *HERALDRY*.

HONOURABLE, a title conferred on the younger sons of earls and the sons of viscounts and barons; as also on such persons as have the king's commission, and upon those who enjoy places of trust and honour.

HOOD, ROBIN, a famous outlaw and deer-stealer, who chiefly harboured in Sherwood Forest in Nottinghamshire. He was a man of family, and played his pranks about the end of the twelfth century. He was famous for archery, and for his hospitable treatment of all travellers who came in the way; levying contributions on the rich, and relieving the poor. At last, having fallen sick, and requiring to have blood taken, he is said to have been betrayed and bled to death. He died in 1247, and was buried at Kirkstree in Yorkshire, then a Benedictine monastery.

Hood, in *Falconry*, is a piece of leather, with which the head of a hawk, falcon, or the like, is covered. See *FALCONRY*.

Hood's Island, the most northerly of the Mendoza's islands, in the South Pacific Ocean, discovered in 1774 by Captain Cook. Long. 138. 52. W. Lat. 9. 26. S.

HOOGHLY, an extensive district in the province of Bengal, formerly called Saatgong, situated principally between the 21st and 22d degrees of north latitude, and extending a considerable distance along both sides of the river Hooghly. It is bounded on the north by the districts of Burdwan and Kishenagur, on the south by the sea, on the east by Jessore and the Sunderbunds, and on the west by Midnapoor. This district consists of low flat land, very fertile; but that part which is nearest to the sea is very thinly inhabited; it is called the Sunderbund, is swampy, covered with wood, and remarkably unhealthy. It is intersected in every direction by rivers and their branches, which afford great facilities for internal navigation; but these waters are unfortunately infested by gang-robbers or river pirates, who are a most ferocious banditti, robbing in gangs, and often using torture to extort from their victims the disclosure of their hidden treasures. Along the shores of the ocean salt of an excellent quality is manufactured on account of the government. Although this district is so near Calcutta, which affords a ready and constant market for its produce, the greater part of the country lies in a completely desert state, infested by alligators, tigers, and a countless variety of vermin and reptiles.

HOOGHLY, an ancient and formerly a large town in the province of Bengal, situated on the western bank of the Hooghly, nearly twenty-six miles above Calcutta, and supposed to have been founded by the Portuguese about the year 1538. During the Mogul government, it was a town of great consequence, being the port of the western arm of the Ganges, where the duties on merchandise are collected. It very soon drew away all the trade from Saatgong, which had been before the government port of Bengal. During the prevalence of the Portuguese dominion in India, Hooghly was fortified, and continued to flourish till the year 1632, when it was attacked by order of the emperor Shah Jehan, and, after a siege of three months and a half, was taken by the Mogul troops, a thousand of the Portuguese being killed, and four thousand four hundred men, women, and children taken prisoners. From this period Hooghly became the imperial port. All the officers of the government were ordered to remove thither, and it was placed under the jurisdiction of a special governor. In the year 1642, the English, and soon afterwards the Dutch, obtained the permission of the native government to erect factories. After this period, every encouragement was given to commerce; and Hooghly, which was called Bukhshy Bunder, became a great commercial emporium between Europe, Persia, Arabia, and India. In 1686 hostilities commenced between the English and the nabob. An action

**Honour-
able
||
Hooghly.**

Hooghly River ensued, in which the nabob's troops were defeated; and at the same time the town of Hooghly was cannonaded, and five hundred houses burned. The result, however, was a disgraceful peace; an amicable arrangement was made by the military superintendent of the district. But in consequence of Calcutta being an open town, the agent and council retired to that place. Long. 88. 28. E. Lat. 22. 54. N.

Hooghly River, properly the Bhagirutty, a river of Bengal, formed by the junction of the two westernmost branches of the Ganges, the Cossimbazar, and the Jellinghy. This is the port of Calcutta, being the only branch of the Ganges that is navigated by large vessels; yet the entrance to the river is rendered extremely dangerous and difficult, by reason of numerous sand banks in it, which are frequently shifting. The shoals are very numerous where the Ganges is joined by the Roopmarain; and as this river directly faces the approach from the sea, whilst Hooghly turns to the right, it occasions the loss of many vessels, which are carried up the Roopmarain by the force of the tide. The spring-tides run up with great violence, advancing at the rate of fifteen miles an hour. This is what is called by the Europeans the Bore, which commences at Hooghly Point, where the river first contracts itself, and is perceptible above Hooghly town; and though the distance is above seventy miles, it traverses this space in about four hours, running along the opposite bank to the Calcutta side, whence it crosses at Chitpoor, about four miles above Fort William, and rushes with great violence past Barnagore, Duckinsore, &c., frequently oversetting boats and driving ships from their anchorage. At Calcutta it sometimes occasions an instantaneous rise of five feet. The tide does not rise more than thirty miles above Calcutta; and during the rainy season its influence is checked by the large body of water that comes down the river. The Hooghly contains several kinds of good fish, particularly the cockup, sable mango fish, and prawns; and it abounds also in crocodiles and sharks. It is about three quarters of a mile broad at Calcutta, and eight or ten miles wide at the mouth. It is only navigable for ships as high as the tide reaches, and the upper part of it is nearly dry during the hot season; yet there are few rivers that can boast of a more extensive commerce, all the towns belonging to European nations, and several others by the natives, standing on its banks. It is esteemed to be the most sacred branch of the Ganges by the Hindus, and it is on this account that those who cannot afford to bury their dead throw them into the Hooghly.

HOOK, in *Angling*. See **ANGLING**.

Hooks of a Ship, are all those forked timbers which are placed directly upon the keel, as well in her run as in her rake.

Can-Hooks, those which being made fast to the end of a rope with a noose, like that which brewers use to sling or carry their barrels on, are made use of for slings.

Foot-Hooks, in a ship, the same with futtocks.

Loof-Hooks, a tackle with two hooks, one to hitch into a cringle of the main or foresail, in the bolt-rope at the leech of the sail by the clew, and the other is to hitch into a strap, which is spliced to the chess-tree. Their use is to pull down the sail, and succour the tackles in a large sail and stiff gale, that all the stress may not bear upon the tack. It is also used when the tack is to be seized more secure, and to take off or put on a bonnet or drabler.

Hook Pins, in *Architecture*, are taper iron pins, only with a hook-head, to pin together the frame of a roof or floor.

HOOCAH, amongst the Arabs and other nations of the East, is a pipe of a singularly-complicated construction, through which tobacco is smoked. Out of a small vessel of a globular form, and nearly full of water, issue two

tubes, one perpendicularly, on which is placed the tobacco, the other obliquely from the side of the vessel, and to that the person who smokes applies his mouth; and the smoke by this means being drawn through water, is cooled in its passage, and rendered more grateful. One takes a whiff, draws up a large quantity of smoke, puffs it out of his nose and mouth in a dense cloud, and passes the hookah to his neighbour; and thus it goes round the whole circle. The hookah is known and used throughout the East; but in those parts where the refinements of life prevail, every one has his hookah sacred to himself; and it is frequently an implement of a costly nature, being of silver, and set with precious stones. In the better kind, that tube which is applied to the mouth is very long and pliant; and for this reason it is termed the snake. People who use it in a luxurious manner fill the vessel through which the smoke is drawn with rose-water, and the fume thereby receives some of the fragrant quality of that liquid.

HOOKE, ROBERT, an eminent English mathematician and philosopher, was the son of John Hooke, minister of Freshwater, in the Isle of Wight, where he was born in 1635. He very early discovered a genius for mechanics, by making curious toys with great art and dexterity. He was educated under Dr Busby in Westminster school, where he not only acquired a competent share of Greek and Latin, together with an insight into Hebrew and some other oriental languages, but also made himself master of a considerable part of Euclid's *Elements*. About the year 1653, he went to Christ-Church, Oxford, and in 1655 was introduced to the Philosophical Society of that place, where, discovering his mechanical genius, he was first employed to assist Dr Willis in his operations in chemistry, and afterwards recommended to the honourable Robert Boyle, whom he served several years in the same capacity. About this time he was also instructed in astronomy by Dr Seth Ward, Savilian professor of that science; and henceforward he distinguished himself by many noble inventions and improvements of the mechanical kind. He invented several astronomical instruments, for making observations both at sea and land; and was particularly serviceable to Mr Boyle in completing the invention of the air-pump. Sir John Cutler having founded a mechanic school in 1664, he settled an annual stipend on Mr Hooke, intrusting the president, council, and fellows of the Royal Society to direct him with respect to the number and subjects of his lectures; and on the 11th of January 1665 he was elected by that society curator of experiments for life, with an additional salary. In 1666 he produced to the Royal Society a model for rebuilding the city of London, destroyed by fire, with which the society was well pleased; but although the lord mayor and aldermen preferred it to that of the city surveyor, it was not carried into execution. As the rebuilding of the city, according to the act of parliament, required an able person to let out the ground to the proprietors, Mr Hooke was appointed one of the surveyors; and in this employment he acquired most part of his estate. Mr Oldenburgh, secretary to the Royal Society, having died in 1677, Mr Hooke was appointed to supply his place, and began to take minutes at the meeting in October, but did not publish the Transactions. In the beginning of the year 1687, his brother's daughter, Mrs Grace Hooke, who had lived with him several years, died; and he was so affected with grief at her death, that he hardly ever recovered it, but was observed from that time to become less active, more melancholy, and even more cynical, than ever. At the same time, a chancery suit in which he was concerned with Sir John Cutler, on account of his salary for reading the Cutlerian Lectures, made him very uneasy, and increased his disorder. In 1691 he was employed in forming the plan of the hospital near Hoxton, founded by Robert Ask, alderman of London, who appoint-

Hooke.

Hooke. ed Archbishop Tillotson one of his executors; and in December the same year, Hooke was created doctor of physic by a warrant from that prelate. In June 1696, the chancery suit with Sir John Cutler was determined in his favour, to his inexpressible satisfaction. In the same year an order was granted to him for repeating most of his experiments at the expense of the Royal Society, upon a promise of his finishing the accounts, observations, and deductions from them, and of perfecting the description of all the instruments contrived by him; but his increasing illness and general decay rendered him unable to perform the task. He continued some years in this wasting condition; and languishing till he was quite emaciated, he died on the 3d of March 1702, at his lodgings in Gresham College, and was buried in St Helen's Church, Bishopsgate Street.

In his person he exhibited but a mean appearance, being of short stature, crooked, pale, lean, and of a meagre aspect, with lank brown hair, which he wore very long, and hanging over his face. His temper was penurious, melancholy, mistrustful; and though possessed of great philosophical knowledge, he had so much ambition, that he would be thought the only man who could invent or discover. Hence it has been asserted by some that he frequently laid claim to the inventions and discoveries of others, whilst he boasted of many of his own which he never communicated. He wrote, 1. *Lectiones Cutlerianæ*, or Cutlerian Lectures; 2. *Micrographia*, or Descriptions of Minute Bodies made by Magnifying Glasses; 3. A Description of Helioscopes; 4. A Description of some Mechanical Improvements of Lamps and Water-raises, 4to; 5. Philosophical Collections. After his death were published, Posthumous Works, collected from his papers by Richard Waller, secretary to the Royal Society.

The following is a chronological view of the inventions to which he laid claim. It would be harsh to say, with regard to any of them, that he did not at least think himself an inventor; with respect to several, his priority is beyond dispute.

1656. Barometer, or weather-glass.

1657. A scapement, for maintaining the vibration of a pendulum; and not long afterwards the regulating or balance-spring for watches.

1658. The double-barrelled air-pump, and the conical pendulum. His first employment of the conical pendulum was not less ingenious and scientific than it was original. He employed it to represent the mutual gravitation of the planets; a fact which he had most systematically announced. He had shown, that a force, perfectly analogous to gravity on this earth, operated on the surface of the moon and of Jupiter. Considering the numerous round pits on the surface of the moon, surrounded with a sort of wall, and having a little eminence in the middle, as the production of volcanoes, he inferred that the ejected matter fell back again to the moon, as such matter falls back again to the earth. Seeing Jupiter surrounded with an atmosphere, which accompanied and therefore pressed on him, as our air presses on the earth, he inferred that it was the same kind of power that maintained the sun and other planets in a round form. He inferred a force to the sun from the circulation round him, calling it a *gravitation*; and said that it was not the earth which described the ellipse, but the centre of gravity of the earth and moon. He therefore made a conical pendulum, the tendency of which to a vertical position represented the gravitation to the sun, and which was projected at right angles to the vertical plane, and showed experimentally how the different proportions of the projectile and centripetal tendencies produced various degrees of eccentricity in the orbit. He then added another pendulum, describing a cone round the first, whilst this described a cone round the vertical line in order to see what point between them

described the ellipse. The results of the experiment were intricate and unsatisfactory; but the thought was ingenious. He candidly acknowledged that he had not discovered the true law of gravitation which would produce the description of an ellipse round the focus, owing to his want of due mathematical knowledge; and therefore he left this investigation to his superiors. Sir Isaac Newton was the person who made the discovery, after having entertained the same notions of the forces which connected the bodies of the solar system, before he had any acquaintance with Dr Hooke, or knew of his speculations.

1660. The engine for cutting clock and watch wheels. The chief phenomena of capillary attraction. The freezing of water at a fixed temperature.

1663. The method of supplying air to a diving bell. The number of vibrations made by a musical chord.

1664. His *Micrographia* was, by the council of the Royal Society, ordered to be printed. In that work there are many just notions respecting respiration, the composition of the atmosphere, and the nature of light, which were afterwards attributed as discoveries to Mayow and others, who, though we are far from supposing that they stole their discoveries from Dr Hooke, were certainly anticipated by him.

1666. A quadrant by reflection.

1667. The marine barometer, and the gage for sounding unfathomable depths.

1668. The measurement of a degree of the meridian, with a view to determine the figure of the earth, by means of a zenith sector.

1669. The fact of the *conservatio virium vivarum*, and that in all the productions and extinctions of motion, the accumulated forces were as the squares of the final or initial velocities. This doctrine he announced in all its generality and importance, deducing from it the consequences which John Bernoulli valued himself so highly upon, and which are the chief facts produced by Leibnitz in support of his doctrine of the forces of bodies in motion. But Hooke was perfectly aware of their entire correspondence with the Cartesian or common doctrine, and was one of the first in applying the celebrated 39th proposition of Newton's *Principia* to his former positions on this subject, as a mathematical demonstration of them.

1673. That the catenarian was the best form of an arch.

1674. Steam-engine on Newcomen's principle.

1679. That the air was the sole source of heat in burning; that combustion is the solution of the inflammable vapour in air; and that in this solution the air gives out its heat and light. That nitre explodes and causes bodies to burn without air, because it consists of this air accompanied by its heat and light in a condensed or solid state, and air supports flame because it contains the same ingredients as gunpowder, that is, a nitrous spirit; that this air dissolves something in the blood whilst it is exposed to it in the lungs in a very expanded surface, and, when saturated with it, can no longer support life nor flame, but in the act of solution produces animal heat; that the arterial and venal blood differ on account of this something being wanting in one of them.

1680. He first observed the secondary vibrations of elastic bodies, and their connection with harmonic sounds. A glass containing water, and excited by a fiddlestick, threw the water into undulations, which were square, hexagonal, octagonal, &c. showing that it made vibrations subordinate to the total vibration; and that the fundamental sound was accompanied by its octave, its twelfth, and so on.

1681. He exhibited musical tones by means of toothed wheels, whirled round and rubbed with a quill, which dropped from tooth to tooth, and produced tones proportioned to the frequency of the cracks or snaps.

Hooke.

Hooke.

1684. He read a paper before the Royal Society, in which he affirms, that some years before that period he had proposed a method of discoursing at a distance, not by sound, but by sight. He then proceeds to describe a very accurate and complete telegraph. But, some years previous to 1684, Amontons had not invented his telegraph; so that, though the Marquis of Worcester unquestionably gave the first hint of this instrument, Dr Hooke appears to have first brought it to a useful state.

To him also we are indebted for many other discoveries of lesser note; such as the wheel barometer, the universal joint, the manometer screw, divided quadrant, telescopic sights for astronomical instruments, representation of a muscular fibre by a chain of bladders, experiments showing the inflection of light, and its attraction for solid bodies, the curvilinear path of light through the atmosphere.

HOOKER, *Nathaniel*, author of an esteemed Roman history, and other performances. Of this learned person the earliest particulars to be met with are furnished by himself, in the following modest but manly address to the Earl of Oxford, dated 7th October 1722; "My Lord, the first time I had the honour to wait upon your lordship since your coming to London, your lordship had the goodness to ask me what way of life I was then engaged in; a certain *mauvaise honte* hindered me at that time from giving a direct answer. The truth is, my lord, I cannot be said at present to be in any form of life, but rather to live extempore. The late epidemical distemper seized me, I endeavoured to be rich, imagined for a while that I was, and am in some measure happy to find myself at this instant but just worth nothing. If your lordship, or any of your numerous friends, have need of a servant with the bare qualifications of being able to read and write, and to be honest, I shall gladly undertake any employments your lordship shall not think me unworthy of. I have been taught, my lord, that neither a man's natural pride, nor his self-love, is an equal judge of what is fit for him; and I shall endeavour to remember that it is not the short part we act, but the manner of our performance, which gains or loses us the applause of Him who is finally to decide of all human actions. My lord, I am just now employed in translating from the French a History of the Life of the late Archbishop of Cambray; and I was thinking to beg the honour of your lordship's name to protect a work which will have so much need of it. The original is not yet published. 'Tis written by the author of the Discourse upon Epic Poetry, in the new edition of Telemaque. As there are some passages in the book of a particular nature, I dare not solicit your lordship to grant me the favour I have mentioned, till you first have perused it. The whole is short, and pretty fairly transcribed. If your lordship could find a spare hour to look it over, I would wait upon your lordship with it, as it may possibly be no displeasing entertainment. I should humbly ask your lordship's pardon for so long an address in a season of so much business. But when should I be able to find a time in which your lordship's goodness is not employed?" The translation here spoken of was afterwards printed in 12mo, 1723. From this period until his death, Mr Hooke enjoyed the confidence and patronage of men not less distinguished for virtue than for rank. In 1730 he published a translation of Ramsay's Travels of Cyrus, in 4to; in 1733 he revised a translation of the History of the Conquest of Mexico by the Spaniards, by Thomas Townsend, printed in two vols. 8vo; and in the same year he published, in 4to, the first volume of the Roman History, from the building of Rome to the ruin of the Commonwealth, illustrated with maps and other plates. In the dedication to this volume, Mr Hooke took the opportunity of "publicly testifying his just esteem for a worthy

Hooker.

friend, to whom he had been long and much obliged," by telling Mr Pope, that the displaying of his name at the head of those sheets was "like the hanging out a splendid sign to catch the traveller's eye, and entice him to make trial of the entertainment the place affords. But," he proceeds, "when I can write under my sign, that Mr Pope has been here, and was content, who will question the goodness of the house?" The volume is introduced by Remarks on the History of the Seven Roman Kings, occasioned by Sir Isaac Newton's objections to the supposed 244 years' duration of the royal state of Rome. His nervous pen was next employed in digesting an account of the conduct of the Dowager-duchess of Marlborough, from her first coming to court to the year 1710, 8vo. His reward on this occasion was considerable, and the reputation he acquired by the performance much greater. The circumstances of this transaction are thus related by Dr Maty, in his Memoirs of Lord Chesterfield (vol. i. p. 116): "The relict of the great Duke of Marlborough being desirous of submitting to posterity her political conduct, as well as her lord's, applied to the Earl of Chesterfield for a proper person to receive her information, and put the memoirs of her life into a proper dress. Mr Hooke was recommended by him for that purpose. He accordingly waited upon the duchess, while she was still in bed, oppressed by the infirmities of age. But, knowing who he was, she immediately got herself lifted up, and continued speaking during six hours. She delivered to him, without any notes, her account in the most lively as well as the most connected manner. As she was not tired herself, she would have continued longer the business of this first sitting, had not she perceived that Mr Hooke was quite exhausted, and wanted refreshment as well as rest. So eager was she for the completion of the work, that she insisted upon Mr Hooke's not leaving her house till he had finished it. This was done in a short time; and her Grace was so well pleased with the performance, that she complimented the author with a present of L.5000, a sum which far exceeded his expectations. As soon as he was free, and permitted to quit the house of his benefactress, he hastened to the earl to thank him for his favour, and communicated to him his good fortune. The perturbation of mind he was under, occasioned by the strong sense of his obligation, plainly appeared in his stammering out his acknowledgments; and he who had succeeded so well as the interpreter of her Grace's sentiments, could scarcely utter his own." The second volume of his Roman History appeared in 1745, when Mr Hooke embraced the occasion of congratulating his worthy friend the Earl of Marchmont, on "that true glory, the consenting praise of the honest and the wise," which his lordship had so early acquired. To the second volume Mr Hooke added the Capitoline Marbles, or Consular Kalendars, an ancient Monument accidentally discovered at Rome in the year 1545, during the pontificate of Paul III. In 1758 Mr Hooke published, 1. Observations on the Answer of M. l'Abbé de Vertot to the Earl of Stanhope's Inquiry concerning the Senate of ancient Rome, dated December 1716; 2. A Dissertation upon the Constitution of the Roman Senate, 1743; 3. A Treatise on the Roman Senate, by Dr Conyers Middleton, 1747; 4. An Essay on the Roman Senate, by Dr Thomas Chapman, 1750, a work which he inscribed to Mr Speaker Onslow. The third volume of Mr Hooke's Roman History, to the end of the Gallic war, was printed under his inspection before his last illness, but did not appear till after his death, which happened in 1764. The fourth and last volume was published in 1771. An octavo edition of the whole work was afterwards given to the world.

HOOKER, *alias* VOWELL, JOHN, born in Exeter about

Hooker. the year 1524, was the second son of Robert Hooker, who in 1529 was mayor of that city. He was instructed in grammar by Dr Moreman, vicar of Menhinit in Cornwall, and thence removed to Oxford, but to what college is uncertain. Having left the university, he travelled through Germany, and resided some time at Cologne, where he kept exercises in law, and probably graduated. He then went to Strasburg, where he studied divinity under the famous Peter Martyr. Having returned to England, he soon afterwards visited France, intending to proceed to Spain and Italy; but he was prevented by a declaration of war. He therefore returned to England, and fixed his residence in his native city, where, having married, he was in 1554 elected chamberlain, being the first person who held that office, and in 1571 represented his fellow-citizens in parliament. He died in the year 1601, and was buried in the cathedral church at Exeter. He wrote, amongst other works, 1. Order and Usage of keeping Parliaments in Ireland; 2. The events of Comets or blazing stars, made upon the sight of the comet Pagonia, which appeared in November and December 1577; 3. An addition to the Chronicles of Ireland from 1546 to 1568, in the second volume of Holinshed's work; 4. A Description of the city of Exeter, and of the sundry assaults given to the same (Holinshed, *Chron.* vol. iii.); 5. A Book of Ensigns; 6. Translation of the History of the Conquest of Ireland, from the Latin of Giraldus Cambrensis (Holinshed, *Chron.* vol. ii.); 7. *Synopsis Chorographica*, or an historical record of the province of Devon, never printed.

HOOKER, Richard, a very eminent writer and divine, was born at Heavytree, near Exeter, in the year 1553. Some of his ancestors were mayors of that city, and he was nephew to John Hooker the historian. He was first supported by this uncle at the university of Oxford, with the addition of a small pension from Dr Jewel, bishop of Salisbury, who in 1561 got him admitted as one of the clerks of Corpus Christi College. In 1573 he was elected scholar. In 1577 he took the degree of master of arts, and was admitted a fellow the same year. In July 1579 he was appointed deputy professor of the Hebrew language; and in October the same year he was, for some trivial misdemeanour, expelled the college, but immediately restored. In 1581 he took holy orders; and being appointed to preach at St Paul's Cross, he went to London, where he was unfortunately drawn into an unhappy marriage with Joan Churchman, the daughter of his hostess. Having thus lost his fellowship, he continued in the utmost distress till the year 1584, when he was presented to the rectory of Drayton Beauchamp in Buckinghamshire. In this retirement he was visited by Mr Edwin Sandys and Mr George Cranmer, his former pupils. They found him, with a Horace in his hand, tending some sheep in the common field, his servant having been ordered home by his Xantippe. Mr Sandys's representation to his father, of his tutor's situation, procured the latter the mastership of the Temple. In this situation he met with considerable molestation from one Travers, lecturer of the Temple, and a bigoted puritan, who in the afternoon endeavoured to confute the doctrine delivered in the morning. From a situation so disagreeable he solicited Archbishop Whitgift to remove him to some country retirement, where he might prosecute his studies in tranquillity. Accordingly, in 1591 he obtained the rectory of Boscomb in Wiltshire, together with a prebend in the church of Salisbury, of which he was also made subdean. In 1594 he was presented to the rectory of Bishopsbourne in Kent, where he died in the year 1600. He was buried in his own parish church, where a monument was erected to his memory by William Cooper. His great work on Ecclesiastical Polity, first published in 1594, is a strenuous defence of the English establishment; but it is at the same time remarkable

for its liberal views of civil government. In this respect it coincides nearly with the theory of Locke; and, indeed, Hoadley says that the author was "styled the father of the Whigs." Hooker is beyond all question one of the most dignified and eloquent of our early writers. "I know not," says Mr Hallam, in his *Constitutional History of England*, "whether any later writer has more admirably displayed the capacities of our language, or produced passages more worthy of comparison with the splendid monuments of antiquity." He was the author of several sermons and tracts. His life, by Isaac Walton, is well known. Dr Garden, bishop of Worcester, published his works in folio, with a life by himself, in 1662. This collection has been several times reprinted, both in folio and in octavo. The last edition, in three vols. 8vo, with Walton's life prefixed, was published in 1830.

HOOKERY, a town of Hindustan, in the province of Bejapoor. It is now greatly reduced, being a poor town, but still exhibits the remains of the magnificence which it formerly possessed when it was under the Mahomedan government. The last of the Mogul sovereigns died in 1643. It is fifty-five miles south-south-west from Meritch. Long. 74. 47. E. Lat. 16. 13. N.

HOOLAIVA, or **HOLAIVA**, one of the Hapae islands, in the South Pacific Ocean, which was found in a state of nature when visited by Captain Cook in 1777. It is joined to Lefooga by a reef that is dry at low water; and is thirty miles north-north-east of Annamooka. Long. 185. 36. E. Lat. 19. 52. N.

HOOLE, JOHN, translator of the *Gierusalemme Liberata* of Tasso, was the son of Samuel Hoole, watchmaker, London, and born at Moorfields in 1727. Having received some elementary instruction from his uncle, a tailor in Grub Street, he was sent to a private school in Hertfordshire, kept by Bennet, the publisher of Roger Ascham's works, where he acquired a knowledge of the Latin and French languages, and some smattering of Greek. It was the wish of the father to bring up his son to his own trade of watchmaker, in which he had met with considerable success; but the shortsightedness of young Hoole proving an insuperable objection, he was, at the age of seventeen, placed as a clerk in the accountant's department in the East India House. About this time, having accompanied to the theatre his father, who had access behind the scenes, he contracted a fondness for the stage, which, if indulged, might have proved fatal to him, seeing he was entirely devoid of histrionic talents; but his attention having been diverted from this pursuit, he employed his leisure in improving himself in Latin, and in learning Italian, which he studied with the view of being able to read in the original the *Orlando Furioso* of Ariosto, of which, while a boy, he had become enamoured in the translation of Sir John Harrington. From admiring he soon proceeded to translate his favourite production; but after having made some progress in his task, he laid it aside for a time, in order to execute a translation of the *Gierusalemme Liberata*, which, accordingly, he commenced in 1758. In 1761 he printed a specimen, which appears to have met the approbation of his friends; for the whole was published in 1763, with a dedication to the queen, written by Dr Johnson. This translation is distinguished for cold correctness and elaborate elegance; but, in the transfusion, the essential spirit of poetry has in a great measure evaporated, leaving a residuum, the general character of which is insipidity. In 1773 Hoole published the first volume of his *Orlando Furioso*, which was favourably received by the public; but the further prosecution of the translation was interrupted by his receiving an appointment as auditor of accounts to the East India Company, an office which occupied much of his time and attention; nor did the whole make its appear-

Hookery
||
Hoole.

Hooly
Onore
||
Hooper.

ance until 1783, when it was published in five vols. 8vo. In 1785 he wrote the life of his friend Mr Scott, the poet of Amwell, with whom he had become acquainted in 1757; in 1791 he published the Orlando reduced to twenty-four books, in two vols. 8vo; and, in 1792, he gave to the English public Tasso's juvenile production, *Rinaldo*. He also published, in three vols. 8vo, the dramas and other poems of Metastasio, his versions of which display more spirit and variety than his translations of Tasso and Ariosto, of which the chief characteristic is an uniform and monotonous smoothness of versification. He was also the author of several dramas, namely, *Cyrus*, which appeared in 1768, *Timanthes* in 1770, and *Cleonice* in 1775; but none of these had any success on the stage. Mr Hoole lived in habits of intimacy with Dr Johnson, whom he attended in his last illness; and died at Dorking on the 2d of August 1803, in the seventy-sixth year of his age. In his private character he was amiable and estimable; but though a man of taste and a good scholar, he had not the slightest pretension to poetical genius, though, from long practice, he had acquired considerable skill in the mechanical construction of verse. He had no kindred sympathies with the *mens divinator* of true poetry, and in his hands, accordingly, its finer spirit generally escaped. (A.)

HOOLY ONORE, a town of Hindustan, in the Mysore rajah's territories. The fort is of a square form, with towers at the angles, and two on each face. In 1792 this fort was taken by the British, and completely sacked and destroyed by the Mahrattas. Prior to this invasion the country was flourishing and well cultivated; but so dreadful was the havoc occasioned by the Mahrattas, that, according to the statement of one officer, every evening when the army encamped they could count ten villages in flames. It is a hundred and twenty-two miles north-west from Seringapatam. Long. 75. 41. E. Lat. 13. 44. N.

HOONGA-HAPARE, and HONGATONGA, two small islands in the South Pacific Ocean, consisting of large uninhabitable rocks, seen at the distance of fifteen leagues. They are thirty and twenty-six miles north from Tongataboo.

HOOPER, JOHN, bishop of Worcester, and a martyr in the Protestant cause, was born in Somersetshire, and educated at Oxford, probably in Merton College. In 1518 he took the degree of bachelor of arts, and afterwards became a Cistercian monk; but at length, disliking his fraternity, he returned to Oxford, and there became infected with Lutheranism. In 1539 he was made chaplain and house-steward to Sir John Arundel, who afterwards suffered with the protector in the reign of Edward VI. But that very Catholic knight, as Wood calls him, discovering his chaplain to be a heretic, Hooper was obliged to leave the kingdom. After continuing some time in France, he returned to England, and lived with a gentleman called Seintlow; but being again discovered, he escaped in the habit of a sailor to Ireland, whence he embarked for the Continent, and fixed his abode in Switzerland. When King Edward came to the crown, Hooper returned once more to his native country. By his old patron Sir John Arundel's interest with the Earl of Warwick, he was consecrated Bishop of Gloucester in 1550; and two years after he was nominated to the see of Worcester, which he held in *commendam* with the former. But Queen Mary had scarcely ascended the throne, when Bishop Hooper was imprisoned, tried, and, not choosing to recant, condemned to the flames. He suffered death at Gloucester, on the 9th of February 1554, being then nearly sixty years of age. He was an avowed enemy to the church of Rome, and not perfectly reconciled to what he thought remnants of popery in the church of England. In the former reign he had been one of Bonner's accusers, a circumstance which sufficiently accounts for his being made one of Queen Mary's

first victims. He was a person of good parts and learning.

HOOPER, George, an eminent English divine, was born at Grimley, Worcestershire, on the 18th of November 1640. Having been instructed in grammar and classical learning, first at St Paul's, and afterwards at Westminster School, where he was a king's scholar, he was thence elected, 1657, to Christ Church, Oxford, where he took his degrees at the regular periods, and distinguished himself by his knowledge in philosophy, mathematics, Greek and Roman antiquities, and the oriental languages. In 1677 he was appointed almoner to the Princess of Orange, and went over to Holland, where he resided about a year, and then returned. In 1680 he is said to have been offered the divinity professorship at Oxford, which, however, was conferred on Dr Jane. In 1685 he attended the Duke of Monmouth in the Tower, and had much free conversation with that unfortunate nobleman, to whom, in his last moments, Hooper administered the consolations of religion. In 1691 he succeeded Dr Sharp in the deanery of Canterbury; in 1698 he was appointed preceptor to the Duke of Gloucester; and in 1701 he was chosen prolocutor of the Lower House of Convocation. In May 1703 he was nominated to the bishopric of St Asaph; and in March following he was translated to the bishopric of Bath and Wells, over which he presided during the long period of twenty-three years and a half. Bishop Hooper died at Berkley, Somersetshire, whither he had been accustomed occasionally to retire, on the 6th of September 1727, in the eighty-seventh year of his age. Besides some sermons, he published several works in his lifetime, and left a number of manuscripts, some of which he permitted to be printed. The following is a catalogue of both, viz. 1. The Church of England free from the imputation of Popery, 1682; 2. Discussion of the Controversy between the Church of England and the Church of Rome, concerning the Infallible Guide; 3. The Parson's case under the Land-tax, 1689; 4. A Discourse concerning Lent, 1694; 5. A Calculation of the credibility of Human Testimony, *Phil. Trans.* for October 1699; 6. New Danger of Presbytery, 1737; 7. Marks of a Defenceless Cause; 8. A Narrative of the Proceedings of the Lower House of Convocation from February 1700 to June 1701; 9. De Valentianorum Hæresi conjecturæ, quibus illius Origo ex Ægyptiaca Theologia deducitur, 1711; 10. An Inquiry into the State of the Ancient Measures, 1721; 11. De Patriarchæ Jacobi Benedictione Conjecturæ. Among the manuscripts above mentioned, are a Latin sermon, and a Latin tract on Divorce. A beautiful edition of the works of Hooper was printed at Oxford, 1757, in folio, under the superintendence of Dr Hunt, professor of Hebrew. (A.)

HOORN, a city of the Netherlands, in the province of North Holland, and the capital of a circle of its own name. It is situated on the Zuyder Zee, is surrounded with ancient walls, and has a good harbour, with docks, and accommodations for ship-building. It contains ten churches, 2640 houses, and (in 1834) 10,200 inhabitants. The district around it is celebrated for the quantity of cheese it produces, more than four million pounds having been exported in some years. It was the place where that mode of curing herrings which has contributed much to the wealth of the country, was first practised. It was the birthplace of the navigator Schouten, who discovered the southernmost cape of America, which still universally bears the name of his native city. It was taken by the English and Russians in September 1799, but was speedily abandoned, from being too far in advance of the line of operations. Long. 4. 54. E. Lat. 52. 38. N.

HOORN Islands, two islands in the South Pacific Ocean, discovered in the year 1616 by Le Maire and Schouten. They were afterwards seen by the navigator Maurelle in 1781. The natives are treacherous, and had well nigh

Hooper
||
Hoorn.

Hop
Hope.

succeeded in cutting off a trading vessel by which they were visited in 1801. They are encircled by a reef of rocks. Long. 171. 30. E. Lat. 15. S.

HOP, a plant of great importance in brewing. This plant was originally brought into England from the Netherlands in the year 1524. Hops are first mentioned in the English statute book in the year 1552, viz. in the 5th and 6th of Edward VI. c. 5. And by an act of parliament of the first year of James I. c. 18, it appears that hops were then produced in abundance in England.

HOPE is the desire of some good, attended with a belief of the possibility at least of obtaining it, and enlivened with joy, greater or less, according to the greater or less probability of our possessing the object of our hope.

HOPE, *Sir Thomas, Bart.* lord advocate to King Charles I. The earliest progenitor of this celebrated person noticed by our genealogists is *John de Hoip*, who, they say, came from France in the retinue of Margaret, queen of King James V. His son *Edward Hoip* was a person of reputation in Edinburgh in the time of Mary; and being a great promoter of the Reformation, was chosen a commissioner to represent the city in the memorable parliament of 1560. He was father of *Henry Hoip* or *Hope*, a considerable merchant, who had by his wife Jaqueline de Tott, a Dutch woman, said by a contemporary to have some time kept a worsted shop in Edinburgh, two sons, *Henry* and *Thomas*. The former became ancestor of the great and opulent branch of the *Hopes*, long settled at Amsterdam. *Thomas*, the individual before us, after passing through his grammatical education, which he did with some applause, obtained the place of servitor or clerk to the eminent Mr (afterwards Sir) John Nicolson of Laswade, advocate, under whom were, in all probability, formed the elements of his after fortunes. The situation of clerk to a practising advocate of the Scottish bar is at this day of some consequence; it was then of more. Prior to the institution of the College of Justice in 1532, division of labour in the profession of the law was scarcely known; and in the *advocate*, or *procurator*, as he was indifferently called, were united at once the chamber counsel, the barrister, and the attorney. The legal skill and knowledge, however, which the institution of the College of Justice induced, gradually detached the business of an attorney; and by act of sederunt dated 13th July 1596, advocates' first clerks were empowered to act below the bar, exclusive of all third persons. The place was valuable on a higher ground; it was almost the only path to professional knowledge, and indeed the domestic nursery of the bar. Our ancient common law having, on the erection of the Court of Session, been superseded by the principles of the Roman jurisprudence, the Scottish bar was, till the union, or rather till our own day, generally prepared for at some one of the foreign colleges, of which those of France and Italy were the most frequented, until the lustre of the Cujacian school in the Low Countries, aiding the connection which arose between us and them at the Reformation, drew the student thither. A knowledge of *practice*, however, still remained to be acquired; but Edinburgh had not yet its chairs of law, nor had the bar sent forth its Craig, its Stair, or its Mackenzie; and, according to the principles of the papal tribunals, of whose spirit the Court of Session partook so largely at its institution, the deliberations of the court were in secret with shut doors; none were then admitted within except the judges and officers of court, and these were all sworn to secrecy. The chamber of a practising advocate was therefore sought by all who meant to make the law the object of their pursuit. In the situation of servitor to Mr Nicolson we find Hope in the year 1600, in which also he married Elizabeth, daughter of John Binning, Esq. of the old and wealthy house of Binning of Wallyford, county of Haddington.

Hops.

About the same time he was appointed solicitor for life, in all actions and causes touching the collection and receipt of new augmentations, with a salary of L.200 Scots per annum. This appointment was made "with advice and consent" of Mr John Preston of Barns, a lord of session, and afterwards president of that court, collector-general of the augmentations; who also, on the 10th of March 1599, resigned his seat as one of the commissaries of Edinburgh, in Hope's favour. The general assembly also nominated him solicitor to the church.

On the 7th of February 1605 he was admitted advocate; and on the 9th of April following, we find him "advocate-substitute" (that is, as we understand, substitute to the king's advocate, then Hamilton of Binning) in the prosecution before the justiciary, at the instance of James Liberton, servant to James, Lord Balmerino, president of the Court of Session, against certain individuals for an assault.

His next appearance was on the other side of the bar, in the famous case of the ministers, which, as it exemplifies much not only of Hope's character, but also of the sentiments of the time in regard both to religious and civil liberty, merits some attention.

In 1592 presbyterianism was established in Scotland by law, but much against the wish of the sovereign, who accordingly lent all his efforts to suppress it again, and to substitute in its stead the show and subordination of episcopacy. His first attack was directed against the general assembly (the convocation of the Scottish church), which, although its meeting "every year at the least, and oftener *pro re nata*, as occasion and necessity shall require," was expressly secured by statute of the above year, he prorogued twice successively, first on account of the accession, and then on pretence of adjusting the union. A third prorogation was issued, and, as if to declare that the power of calling the assembly was in the king, no time was fixed for its meeting. The royal designs being thus manifest, it became incumbent on the church, if it meant to maintain its liberties, now to make a stand. Accordingly nine presbyteries sent their representatives to Aberdeen on the 2d of July 1605, the day and place named in the former prorogation. When they had assembled, Straiton of Laurieston, the king's commissioner, presented them a letter from the privy council, which being addressed "to the brethren of the ministry, convened at their assembly in Aberdeen," they resolved should not be read till they were constituted. They proceeded accordingly to elect a moderator and clerk. They then took up the letter, when a messenger-at-arms, also from the privy council, entered, and charged them to dismiss under pain of rebellion. The church having, in constituting their meeting, asserted their right to a general assembly, were prepared to comply with the wish of the council, and only requested the king's commissioner to name a day and place for next assembly. On his refusal, the moderator appointed the assembly to meet again on the last Tuesday of September ensuing, and then dissolved the meeting with prayer. The conduct of the church on this occasion was worthy of a people who had their religious liberty secured to them by law, and was marked at once by zeal for the rights of the church and respect for the authority of the sovereign, by intrepidity and moderation; but no sooner was the king apprised of it, than he directed the parties to be proceeded against with all rigour. John Forbes, minister at Airfurd, the moderator, John Welsh, minister at Ayr, and four others, were therefore cited to appear before the privy council to answer for their conduct. They appeared accordingly, but respectfully declined the jurisdiction of the tribunal as incompetent. A new crime thus sprung into being; and Hamilton, the king's advocate, and his ready instrument on all

Hope. occasions, thereupon brought a prosecution against the six ministers, under an act passed during the infamous administration of Arran in 1584, which declared that none should decline the judgment of the king or privy council, under the pain of treason. On the 10th of January 1606 the trial came on at Linlithgow, and the counsel chosen by the prisoners were, "Mr Thomas Gray and Mr Thomas Hoip, advocates," Craig and Oliphant having refused to plead in the cause, though it seems they had previously engaged to do so. Gray was a man of sincere affection to the cause, and of good skill in the law; but he had no great readiness of utterance. Hope had never before pleaded in that court. A formal plea was first put in and overruled. Hope then argued the case to the court; but all his arguments, able and conclusive though they were, and his courage, learning, and ingenuity in maintaining them, proved unavailing; the indictment was sustained, and the truth of the facts sent to the jury as their only province; for, according to the practice of that time, all the facts of the case were circumstantially stated in the indictment, with a view to limit the jury to the single point whether the facts were proved or not, their effect, if proved, being already settled by the authority of the court, which the juries of that period scarcely ever ventured to dispute. The jury by a majority, and after much tampering and undue influence, found all the defendants guilty of treason, and in September following they were banished the kingdom for life.

The next notice we have of Hope is in a letter from the council to the king, dated 24th June 1608, where Oliphant, Russel, King, and he, are mentioned as "the most learned and best experienced of their profession;" and we find that he gradually entered on the largest professional practice of his time. His knowledge of tithes and church-law was particularly remarked, so that King Charles I., whose anxiety to recover the church property is well known, impressed with a sense of his value, immediately on his accession appointed him king's advocate, in conjunction with the aged Sir William Oliphant of Newton. The king also then knighted him; and the Court of Session, by act of sederunt dated 12th July 1626, passed at the king's request, allowed him to plead covered. The nature of this last act has been strangely misapprehended by some of our writers. The usual explanation is, that having *two* (Playfair, Sharp, and some other peerage writers, assert he had *three*) sons on the bench, the court indulged him with the privilege of pleading with his cap on like the judges; it being deemed indecorous, they say, that a father should stand uncovered before his sons. The truth is, however, that Hope had no son on the bench at this time, nor for six years afterwards; and the act of sederunt had an origin altogether different. From the institution of the College of Justice till this time, the king's advocate was a member, not only of the bar, but also of the bench. But in February 1626, Oliphant was removed from the bench, and a royal ordinance issued, that no officer of state should have an ordinary seat there. It was this ordinance which was the occasion of the act in question; and the intent and meaning of the act no doubt was to assert and establish the equality of the king's advocate with the bench. It was not long before Hope took occasion to vindicate his dignity in a more substantial way; for it appears that, on account of some expressions used by him at the bar, the judges thought fit to visit him with a public censure. This, however, was not to be endured by Hope; so on his application to the fountain of honour, a royal letter, of date 4th December 1626, was despatched to the judges, in which the king sharply reproved them for their want of respect, and desired that in future none in his high office should be rashly censured, without first acquainting the king therewith.

On the 11th of February 1628, Hope was created a baronet; and on Oliphant's death in April following, he obtained a patent of the office of sole advocate to the king and prince for life, with a pension of L.200 sterling yearly out of the crown rents; an allowance larger than that enjoyed by the judges, or than had previously been annexed to the office. Not being a lord of session, a letter from the king was then also transmitted to the judges to allow him to remain in court during its deliberations, "sua that he may heir and knaw such thingis as sall happen to occur that concernis his majesty," the deliberations of the court being at this time carried on with shut doors; and as they proved dilatory in the matter, the king despatched a peremptory order, dated 10th October 1628, to allow him to sit within the bar, and to remain in court during its deliberations, both, in fact, ancient privileges of the king's advocate. This they obeyed on the 19th of November 1628, taking Hope's oath "to keip the secreits of the house." In 1630 he received from the crown a gift of L.2000. In 1632 his eldest son was knighted, and made a lord of session; and the next year his second son likewise received the honour of knighthood.

It was in 1632 that Hope produced his *Minor Practicks, or Observations on the Law*, delivered by him to his son orally, it is said, at his mornings' toilet. It is distinguished for its legal learning, the breadth and boldness of its views, the acuteness of its remarks, and the subtilty of its distinctions. To this last quality of it, indeed, we are indebted for the sketch of its author by Dirleton, who characterises Hope as "*juris nostri peritissimus, sed nimis et captiosæ subtilitatis.*" A more minute account of Hope is given by Mackenzie. His forte, says he, consisted in a wonderful power of invention, which supplied him with so great a multitude of topics that he commonly wanted time for their exposition. His course in debate was uniform, yet peculiar; for when he had propounded an argument or exception, he usually adduced the reason upon which it was founded, and if that appeared doubtful, then the reason of the reason, or the ultimate principle itself. The resources of rhetoric were not unknown to him, but it seemed as if they were unnecessary. Of the illustrious triumvirate who in the days of Hope, Nicholson, and Stuart, adorned the Scottish bar, Nicholson improved our eloquence, Hope the law itself.

It was he who, according to some, devised the irritant and resolute clauses of entails; the one to annul the deed attempted to be granted, the other to dissolve and forfeit the right of the person making the attempt. He also devised the title by adjudication on an heir's feigned bond.

We are moreover told that he recommended to the lords of erection, or titulars of church lands, a mode of getting all the kirk livings back again, notwithstanding the act of parliament which annexed them for ever to the crown, by causing a wadset of the same to be taken, and declaring in the writs that his majesty was indebted in large sums of money, though indeed he owed none. To the exercise of Hope's ingenuity in this last case, however, a different criterion must be applied from any that can be used in the others, he being in the employment of his sovereign to obtain and secure the annexation. Burnet expressly says that "Sir Thomas Hope, a subtle lawyer, who was believed to understand the matter of church property beyond all the men of his profession, though in all respects he was a zealous puritan, was made the king's advocate, *on his undertaking to bring all the church lands back to the crown*; yet," adds the bishop, "he proceeded in the matter so slowly, that it was believed he acted in concert with the party that opposed it."

Hope's conduct was equally unprincipled in another respect. During the struggles between the king and the puritans, he was the adviser of both. The tumult at Edin-

Hope
Island
||
Horapollo

burgh in 1637, the supplication to the privy council in 1638, the war against the king in 1639, and the convention of estates in 1643, were all known to and approved of by him; yet all this time he was the king's advocate, and by his flattering carriage, says Bishop Guthry, insinuated himself so far with his majesty, that notwithstanding information enough, his majesty consulted and was ruled by him in most of his affairs. On account of the benefits derived by them from his counsels, the Covenanters continued him in his office of king's advocate; his second son, Sir Thomas, who had commanded the *College of Justice troop* in their army against the king, they made a lord of session, and lord justice general of Scotland; and his sixth son, Sir James, they made governor-general of the mint, then an office of importance, to which they annexed an exclusive local jurisdiction, both civil and criminal. The king, on the other hand, appointed Hope to almost the only place then in his gift, namely, that of his commissioner to the general assembly, a place new to a commoner, and in which Hope, now giddy with the height to which he had been raised, carried himself proudly and extravagantly. He died in November 1646. (u. u. u.)

HOPÉ Island, an island situated in the South Pacific Ocean, and discovered in 1772. It is not far from Ceram island. There are also two small islands of this name near the north-east coast of New Holland. Long. 214. 36. W. Lat. 15. 41. S.

HOPLITES, HOPLITÆ (formed from ὅπλον, *armour*), in *Antiquity*, were such of the candidates at the Olympic and other sacred games as ran races in armour. One of the finest pieces of Parrhasius was a painting representing two hoplites; the one running, and seeming to sweat large drops, and the other laying down his arms, exhausted and out of breath.

HOPLITODROMOS (formed from ὅπλον, *armour*, and δρῶμαι, *I run*), in the ancient gymnastic sports, a term applied to such persons as went through toilsome and robust exercises in complete armour.

HOPLOMACHI, Ὀπλομαχοί (composed of ὅπλον, *armour*, and μάχεται, *I fight*), in *Antiquity*, were a species of gladiators who fought in armour; being either completely armed from head to foot, or provided only with a casque and cuirass.

HOPPER, a vessel in which seed-corn is carried during the time of sowing. The word is also used for the wooden trough in a mill, into which the corn is put to be ground.

HOR, a mountain or mountainous tract of Arabia Petræa, situated in that circuit which the Israelites took to the south and south-east of Edom in their way to the borders of Moab. On this mountain Aaron died. The inhabitants were called *Horites*. This tract was also denominated *Seir*.

HORÆA, in *Antiquity*, were solemn sacrifices, consisting of fruits and other products of the earth, offered in spring, summer, autumn, and winter, that heaven might grant mild and temperate weather. These, according to Meursius, were offered to the goddesses called Ὠραι, or *Hours*, who, being three in number, attended upon the sun, presided over the four seasons of the year, and had divine honours paid them at Athens.

HORAPOLLO, or **HORUS APOLLO**, was, according to Suidas, a grammarian of Panopolis in Egypt, who taught first at Alexandria, and afterwards at Constantinople, under the reign of Theodosius, or about the year 380 of our era. But as there were several persons of this name, it is uncertain whether the grammarian of Panopolis, or some other Horus Apollo, was the author of the two books still extant, "concerning the hieroglyphics of the Egyptians," which Aldus first published in Greek, 1505, in folio. These books have often been republished since, with a Latin version and notes; but the best edition of them is that of

Cornelius de Pauw, which appeared at Utrecht in the year 1727, in 4to. Fabricius is of opinion that the *Hieroglyphica* did not emanate from the grammarian of Panopolis, to whom indeed Suidas does not attribute it, but that it is the production of another Horus Apollo, who flourished about fifteen hundred years before Christ, and wrote upon hieroglyphics in the Egyptian language, and from whose work an abstract was afterwards made, and translated into the Greek language. And this much seems certain, that, whatever may have been the epoch of the original author, the two books of *Hieroglyphics* contain the substance of an older work, interspersed with the fancies and conceits of a later age, when the true import of many of the Egyptian symbols was no longer understood. These books, however, besides being exceedingly curious in themselves, have derived a new and unexpected interest from the discoveries of Dr Young and M. Champollion; and though the former somewhat hastily treated the explanations of Horus Apollo as mere puerilities, the latter showed, in a very satisfactory manner, that some of them at least were well founded, and susceptible of confirmation from the interpretation of the hieroglyphical texts on the monuments; in other words, assuming these explanations as correct, and combining such assumptions with the values of other characters ascertained by different means, he found that the whole led to results, the truth of which was either self-evident or demonstrable. At the same time, it cannot be disputed that, in the abridged Greek version, there are many absurdities that could never have had a place in the Egyptian original from which it was made, and which must therefore be regarded as the interpolations of an age when the knowledge of hieroglyphics had declined, and the values of the more recondite symbols, particularly the tropical and ænigmatical, had been lost. Besides, the analogies on which Horus Apollo endeavours to explain the original employment and secondary import of the signs, are, many of them, fanciful and remote, though sometimes ingenious; they proceed upon assumptions, the truth of which cannot now be ascertained, and which are occasionally too far fetched and ridiculous not to startle the most credulous. It is highly probable, indeed, that, in the course of ages, the primary analogies were forgotten; that, in practice, many of the signs were employed arbitrarily, without reference to their precise original import, whether kuriological or tropical, usage prevailing over strict principle; and that abbreviated forms, though possessing in use a known and determinate value, were no longer susceptible of being resolved and re-expanded into their original elements. But, with all these drawbacks, this abridgment is highly curious in itself, and, in several instances, has afforded a clue to explanations which, but for the assistance afforded by it, might never have been discovered. See the article *HIEROGLYPHICS, passim*. (A.)

HORATII, three Roman brothers, who, under the reign of Tullus Hostilius, fought against the three Curiatii, belonging to the Alban army. Two of the Horatii were killed; but the third, by his address, successively slew the three wounded Curiatii, and by this victory rendered the city of Alba subject to the Romans.

HORATIUS, surnamed *Cocles*, from his losing an eye in combat, was nephew of the consul Horatius Pulvillus, and descended from one of the three brothers who fought against the Curiatii. Porsenna having laid siege to Rome, drove the Romans from Janiculum, and pursued them to the wooden bridge over the Tiber, which joined the city to Janiculum. Largius, Herminius, and Horatius Cocles, sustained the shock of the enemy at the bridge, and prevented them entering the city with the Romans; but Largius and Herminius having passed the bridge, Horatius Cocles was left alone, and repulsed the enemy till the bridge was broken down under him, when he threw himself armed into the

Horatii
||
Horatius.

Horatius. Tiber, swam across the river, and entered Rome in triumph.

HORATIUS FLACCUS, Q. one of the most celebrated of the Roman lyric poets, who was born on the 8th of December, B. C. 65, and died at the age of fifty-seven, B. C. 8. He was the son of a freedman of Venusia, a small village on the confines of Apulia and Lucania. His father's employment seems to have been that of an auctioneer (*Sat.* i. 6, 86); but he possessed also a small landed property, which, however, he soon abandoned to proceed to Rome, where he had a better opportunity of attending to the education of his son. The studies of the young poet were directed by the most eminent scholars of which Rome could then boast, and amongst others by Orbilius Pupillus, a celebrated philosopher. Towards his twentieth year Horace followed the custom which was then prevalent amongst the young Romans, and proceeded to Athens with the view of studying under the philosophers which that city still produced. He seems first to have directed his attention to the doctrines of the Academic School, though he was afterwards captivated by the more congenial philosophy of the Epicureans; and the general complexion of his life seems to have been influenced by this predilection, though, towards its close, he seems to have leaned a little towards the sterner and nobler creed of the Porch. He does not, however, acknowledge himself as the partisan of any peculiar system (*Epist.* i. 1, 13), but, like most of the eminent Romans of his time, was of the Eclectic School, which pretended to be a selection of the more reasonable doctrines of all the others. The murder of Cæsar, and the disturbances which ensued (B. C. 43), interrupted the philosophical studies of Horace. His feelings led him to support the cause of freedom, and he became a tribune in the army of Brutus; but his conduct at the battle of Philippi, which he has himself characterised with equal candour and naïveté, showed that he was not qualified to distinguish himself in the career of arms. He took advantage of the amnesty which the conqueror found it politic to grant after this unsuccessful attempt at resistance, and returned to his native country, where he found little cause of satisfaction either in the political aspect of the times, or in the events which had taken place in his own family. The death of his father had left him to his own resources, and his small patrimony had been confiscated in consequence of the part which he had taken in public affairs. It was about this time that he seems first to have attracted notice by his poetical genius, and to have become acquainted with the poets Virgil and Varius. Through their interest he was introduced to Mæcenas and Augustus, who not only admitted him to their intimate friendship, but presented the poet with a small property in the country of the Sabines, where he spent the greater part of his life in the quiet enjoyment of rural happiness. Here he composed most of those works which have immortalized his name.

The works of Horace are of two kinds; lyric and didactic. To the first class belong the Odes, and in the latter we reckon the Satires and Epistles, which are often distinguished by the general name of *Sermones* or *Eclogæ*. (See Bentley, *Præfat. ed. Horat.*) Though Horace was only pursuing the path in which he had been preceded by Lucilius, still we must consider the appearance of his Satires as constituting a new era in this particular species of composition. The overthrow of the Roman republic, and the consequent check given to freedom of speech, the change which had taken place in political affairs, and the personal connection of the poet with Augustus, Mæcenas, and the other distinguished men of the emperor's court, may well be supposed to have been little calculated to produce a satire of the peculiar character and freedom of Lucilius. Satire of such a kind was not only impracticable, but would have been without interest and without

effect from the change which had taken place in the modes of thinking amongst the Romans. Such a change could not escape the notice of a man so clear headed and well acquainted with the world as the poet; the acts of men around him seemed to him to be the result of folly, and in this ridiculous light he presents them before us in his Satires. The object which he had in view was not so much to lash with all the power of indignant virtue the crimes of mankind, and thereby to procure their amendment, as, by the employment of the most delicate irony, and by laughter and ridicule, to draw them to the path of virtue. It was in this way alone that he could hope to improve the character of his contemporaries. The Satires of Horace supply in some degree the absence of all pure Roman comedy, representative of their actual life and manners. They may be considered as a mirror, in which the details of private life, and the every-day transactions of the times, are faithfully reflected. The Epistles resemble the Satires in character, except that they teach more directly lessons of virtue and morality.

Horace was a poet in his philosophy, and a philosopher in his poetry. He viewed the one through the medium of the imagination, and attempered the other with the sober spirit of truth. His observation is intuitive and unerring, his ridicule keen but not envenomed; he laughs at human follies without attempting to depreciate or degrade human nature; his sarcasms, though cutting, are felt to be just as well as polished; and we recognise in him the Democritus of poetry, who employed ridicule as an instrument of correction, not of malice. Hence his writings, with which we are familiar from boyhood, carry with them attractions which are felt in every period of life, and in almost every rank of society. They charm alike by the harmony of the numbers, the purity of the diction, the correctness of the imagery, and the justness of the sentiments. They exhilarate the gay, and interest the serious, according to the nature of the subject upon which the poet exercises his power. Professing neither the precision of analysis, nor the copiousness of system, they possess advantages which analysis and system rarely attain. They exhibit human imperfections as these really are, and human excellence as it practically ought to be; they develop every principle of virtue in morals, and point out every modification of decorum in manners; they please without the glare of ornament, and instruct without the formality of precept. These exquisite compositions are the productions of a mind enlightened by study, and invigorated by observation; they are comprehensive, but not visionary; delicate, but not fastidious; in them sagacity is unwarped by prejudice, and generosity uncramped by suspicion. They are distinguished by diction always adapted to the sentiment, and by efforts nicely proportioned to the occasion. They exhibit elegance without affectation, sublimity without bombast, satire without buffoonery, philosophy without mysticism. Hence it is that the writings of Horace are more extensively read, more clearly understood, and more acutely relished, than those of almost any other ancient author; they are perfect models of their kind, and will pass down to the most distant posterity as among the most finished and faultless productions of the classic muse.

Numerous editions have been published of his works, but the best are those by Gesner, Lips. 1752, 1772; Bentley, Cantab. 1711; Doring, Lips. 1803; Fea, Rom. 1811; to which may be added the more recent editions of Wakefield, Hunter, and Mitscherlich. The first four books of the Odes have been translated into English verse by Wrangham (Lond. 1820), and the Satires and Epistles by Dunster (1712).

HORDE, in *Geography*, is used to signify a company or mass of wandering people, who have no settled habita-

Horde.

Hordicalia tion, but stroll about, dwelling in waggons or under tents, ready to shift their quarters as soon as the herbage and fruits are exhausted.

Horizontal Range.

HORDICALIA, or **HORDICIDIA**, in *Antiquity*, a religious feast amongst the Romans, in which they sacrificed cattle large with young. This feast fell on the 15th of April, on which day they sacrificed thirty cows with calf to the goddess Tellus, or the Earth, part of them being immolated in the temple of Jupiter. The calves taken out of their bellies were burned to ashes, at first by the pontifices, but afterwards by the eldest of the vestal virgins.

HOREB, or **OREB**, a mountain of Arabia Petræa, contiguous to Mount Sinai on the south, and the scene of many miraculous appearances.

HORISPOOR, a town of Hindustan, in the Sikh territories, in the province of Lahore, ninety-eight miles east-south-east from the city of Lahore. Long. 75. 27. E. Lat. 31. 30. N.

HORIZON, or **HORISON**, in *Geography* and *Astronomy*, a great circle of the sphere, dividing the world into two parts or hemispheres; the one upper and visible, the other lower and hidden. The word is pure Greek, *ὁρίζων*, which literally signifies bounding or terminating the sight, being formed from *ὁρίζω*, *termino*, *definio*, to bound or limit. See **ASTRONOMY** and **GEOGRAPHY**.

The horizon is either *rational* or *sensible*. The *rational*, true, or *astronomical horizon*, which is also called simply and absolutely *the horizon*, is a great circle of the sphere, the plane of which passes through the centre of the earth, and the poles of which are the zenith and nadir. It divides the sphere into two equal parts or hemispheres. The *sensible*, *visible*, or *apparent horizon*, is a lesser circle of the sphere, which divides the visible part of the sphere from the invisible. Its poles, too, are the zenith and nadir, consequently the *sensible horizon* is parallel to the *rational*; and it is cut at right angles, and into two equal parts, by the verticals. The sensible horizon is divided into *eastern* and *western*. The *eastern* or *ortive horizon* is that part of the horizon in which the heavenly bodies rise; the *western* or *occidial horizon* is that in which the stars set. The altitude or elevation of any point of the sphere is an arch of a vertical circle intercepted between it and the sensible horizon. By sensible horizon is also frequently meant a circle, which determines the segment of the surface of the earth, over which the eye can reach, and it is also called the *physical horizon*. In this sense we say, a spacious horizon, a narrow, scanty horizon, and so forth.

HORIZONTAL, something which relates to the horizon, or is taken in the horizon, or on a level with the horizon. Thus we say, a *horizontal plane*, a *horizontal line*, and the like.

HORIZONTAL Dial is that which is drawn on a parallel to the horizon, having its gnomon or style elevated according to the altitude of the pole of the place for which it is designed. Horizontal dials are, of all others, the most simple and easy. The manner of describing them may be seen under the article **DIALLING**.

HORIZONTAL Line, in *Perspective*, is a right line drawn through the principal point, parallel to the horizon; or it is the intersection of the horizontal and perspective planes. See **PERSPECTIVE**.

HORIZONTAL Plane is that which is parallel to the horizon of the place, or nothing inclined thereto. The business of levelling is to find whether two points be in the horizontal plane, or how much is the deviation between them.

HORIZONTAL Plane, in *Perspective*, is a plane parallel to the horizon, passing through the eye, and cutting the perspective plane at right angles.

HORIZONTAL Range, or **Level Range**, of a piece of ord-

nance, is the line it describes when directed parallel to the horizon or horizontal line.

HORN, in *Physiology*, a hard substance growing on the heads of different animals, particularly the cloven-footed quadrupeds, and serving them both as weapons of offence and defence.

HORN is also a sort of musical instrument of the wind kind, which is chiefly used in hunting, to animate and bring together the dogs and the hunters. The term anciently was, *wind a horn*, all horns being in those times compassed; but since straight horns have come into fashion, they say *blow a horn*, and sometimes *sound a horn*.

The *French Horn* is merely a wreathed or contorted trumpet.

HORN Distemper, a disease incident to horned cattle, affecting the internal substance of the horn, commonly called the pith, which it insensibly wastes, leaving the horn hollow.

HORN-Work (*ouvrage à corne*), in fortification, an out-work composed of a front and two branches; the front consisting of two half bastions and a curtain. This work is of the nature of a crown-work, but smaller, and serves the same purposes. The use of horn-works, in general, is to occupy some rising grounds in advance of the principal fortification, the distance of which determines that of the horn-work; and they are placed either before the curtain or before the bastions, according to circumstances.

HORNBERG, a town of the duchy of Baden, in Germany, in the circle of Kinzig, the capital of a bailiwick of the same name, in the Black Forest, comprehending one town and thirteen villages, with 8350 inhabitants. The town is situated in a romantic vale, and contains 1225 individuals.

HORNBY, a market-town in the parish of Melling, of the hundred of Lonsdale, in the county of Lancaster, 249 miles from London. It is situated on the river Lyne, has a Gothic church with an octagonal tower, and near to it is an ancient castle, built by the Barons Monteagle. There is a good market held on Thursday. The population amounted in 1801 to 414, in 1811 to 420, in 1821 to 477, and in 1831 to 383.

HORNCastle, a town and parish of the county of Lincoln, in Lindsey Division, 136 miles from London. It stands on the river Bane, in a valley which at seasons is nearly overflowed. It was an ancient Roman station, and some of the walls constructed by the Romans are still visible. There is a medicinal spring near the town, but it is not much applied to. There is a good market, which is held on Saturday. A canal has been constructed, which connects the river Bane with the Witham. The population amounted in 1801 to 2015, in 1811 to 2622, in 1821 to 3058, and in 1831 to 3988.

HORNCHURCH, a town in the hundred of Romford, of the county of Essex, fourteen miles from London, the population of which amounted in 1801 to 1331, in 1811 to 1562, in 1821 to 1938, and in 1831 to 2186.

HORNE, **GEORGE**, an English prelate of considerable eminence, was born in the vicinity of Maidstone, in the county of Kent, in the year 1730. His father was rector of Otham; and having for some time acted in the capacity of tutor at Oxford, was well qualified to superintend the education of his son. However, that the latter might not be spoiled by too long a residence at home, he was, by the advice of a friend, sent, at the age of thirteen, to Maidstone school, where he continued under an eminent teacher for two years, and acquired some knowledge of oriental literature, particularly the Hebrew. In his fifteenth year he went to Oxford, where he laboured indefatigably to store his mind with almost every branch of useful learning, and resolved to make polite literature subservient to the knowledge and illustration of the Scrip-

Horn
Horne.

Horne. tures. He studied the Hebrew more attentively, and was exhorted to abandon the method of Buxtorf, encumbered as it is with the Masoretic punctuation. The rectitude of his conduct, and the vivacity of his conversation, gained him the esteem of every person with whom he was acquainted. In the year 1749 he was made bachelor of arts, and next year was elected to a fellowship in Magdalen College, without any solicitation upon his part.

About this time he became a proselyte to the mysteries of Hutchinsonianism, chiefly through the influence of Mr William Jones. At the age of nineteen, his mind was completely fettered by these doctrines, believing that it was the design of Sir Isaac Newton and Dr Clarke to subvert the theology of the Scriptures, and introduce the stoical *anima mundi* instead of the God of the Universe. Under the influence of such an infatuation, it is not astonishing that he should have endeavoured to discredit the system of Newton. He obtained the degree of master of arts in the year 1752, when he engaged in a controversy on the subject of the Cherubim. With a view to recommend the writings of Hutchinson, he published, A fair, candid, and impartial state of the case between Sir Isaac Newton and Mr Hutchinson, in which is shown, how far a system of physics is capable of mathematical demonstration; how far Sir Isaac's, as such a system, has that demonstration; and consequently, what regard Mr Hutchinson's claim may deserve to have paid it. In the year 1753 Mr Horne entered into holy orders, and acquired high reputation as a public speaker, his compositions being excellent, and his elocution graceful. Whilst preaching before the university, he introduced some of his peculiar notions, which again led him into controversy. A pamphlet made its appearance, entitled A Word to the Hutchinsonians; or, remarks on three extraordinary sermons lately preached before the university of Oxford, by Dr Patten, Mr Wetherell, and Mr Horne. To this our author replied in an Apology for certain gentlemen in the university of Oxford, aspersed in a late anonymous pamphlet. The vindication of the hint to the Hutchinsonians was supposed to be the production of Dr Kennicott, who afterwards became so famous for his labours in collating Hebrew manuscripts, and his valuable edition of the Hebrew Bible. Mr Horne was chosen proctor of the university in 1758; and, on the honourable termination of his authority, was created bachelor of divinity. When Mr, afterwards Dr Kennicott, gave to the world proposals for collating the text of the Hebrew Bible, for the purpose of correcting the original, and preparing for a new translation, Mr Horne became very much alarmed. He apprehended that the adoption of such a measure would overwhelm the sacred text with licentious criticism; and on this ground he published, in 1760, A View of Mr Kennicott's method of correcting the Hebrew text, with three queries formed thereon, and humbly submitted to the consideration of the learned and Christian world. But an acquaintance which thus began in hostility was afterwards converted into genuine friendship, which continued throughout the whole of life.

In 1764, Mr Horne was created doctor in divinity, although not as yet advanced to any conspicuous station. On the death of Dr Jenner, the president of Magdalen College, in the beginning of 1768, Dr Horne was appointed to succeed him in a post at once honourable and valuable; after which he exchanged a single for a married life. Next year he published Considerations on the Life and Death of St John the Baptist, being the substance of several sermons preached by him before the university. In 1771 he was chosen chaplain in ordinary to his majesty, which he held for ten years. In 1772, when a number of clergymen had formed the resolution of petitioning parliament for relief as to subscribing the liturgy and thirty-nine articles, Dr Horne

determined, if possible, to defeat their object; and for this purpose he published Considerations on the projected Reformation of the Church of England, in a letter to Lord North.

He now set about finishing his greatest work, which had occupied his attention for almost twenty years. This was his Commentary on the Book of Psalms, which appeared in 1776, in two volumes quarto. It exhibits profound erudition and fervent piety, and will be perused with pleasure and advantage by every judge of merit. In the same year he was chosen vice-chancellor of the university, which he held till the end of the year 1780. On the publication of Dr Adam Smith's letter, containing an account of the death of Mr David Hume, Dr Horne publicly animadverted upon it, in A Letter to Adam Smith, LL.D. on the life, death, and philosophy of his friend David Hume, Esq. by one of the people called Christians. In 1779, Dr Horne published, in two volumes octavo, Discourses on various subjects and occasions, which have procured the approbation of all description of readers.

As vice-chancellor of the university he became acquainted with Lord North, to whose interest, joined with that of Lord Hawkesbury, he was in 1781 indebted for the deanery of Canterbury. His time was now divided between that city and Oxford; and the conscientious discharge of every part of his complex duty made him universally beloved. In 1784 he published Letters on Infidelity, similar to his reply to Dr Adam Smith. The books against which he levelled his ridicule are, An Apology for the Life and Writings of David Hume, Esq.; Hume's Dialogues on Natural Religion; an Essay on Suicide by the same author, and a treatise entitled Doubts of the Infidels. In the year 1790, when Dr Bagot was translated to the see of St Asaph, Dr Horne was appointed to succeed him in the see of Norwich. His last literary labours were, Observations on the case of the Protestant Dissenters with reference to the Corporation and Test Acts, 1790; and a Charge intended to have been delivered to the clergy of the diocese of Norwich, at his first visitation, 1791. When he was raised to the episcopal dignity, his health, always delicate, began rapidly to decline; but from the waters of Bath he received great relief, and to this place he repaired a third time in the harvest of 1791. On his way thither, however, he was seized with a stroke of palsy, and after languishing for a few weeks, he died at Bath, on the 17th of January 1792, in the sixty-second year of his age.

He was powerfully animated in his last moments by those hopes which spring from the promises of the gospel, and the inexpressible satisfaction of a well-spent life. His erudition was extensive, his piety sincere, and his life irreproachable. His charity, both of a public and private nature, was extensive; and if not in debt at the end of the year, he felt perfectly satisfied. His posthumous works are, Discourses on several Subjects and Occasions; a volume of Sermons; and, Cautions to the Readers of Mr Law.

HORNERS, those people whose business it is to prepare various utensils from the horns of cattle. The horners were a considerable fraternity in the city of London some centuries ago. In the reign of Edward II. they complained to parliament, that by foreigners buying up the horns in England, they were in danger of being ruined, and their business lost to the nation. For this reason was made the statute 6 Edward IV. by which the sale of horns to foreigners, excepting such as the horners refused, was prohibited; and the wardens had power granted them to search all the markets in London, and twenty-four miles round, and to inspect Stourbridge and Ely fairs, to prevent such practices, and to purchase horns at stated prices. But on plausible pretences this law was repealed in the reign of James I.,

Horners.

Horning
||
Horologium.

and thereupon the old evil revived. The horners again applied to parliament, and King Edward's statute was renewed, excepting as to the inspection of the fairs, and still, it is believed, remains in force.

HORNING, in *Scotch Law*, a writing issuing under the king's signet, at the instance of a creditor against his debtor, commanding him, in the king's name, to pay or perform within a certain time, under pain of being declared rebel and put in prison.

HORNINGSHAM, a town of the hundred of Heytesbury, in the county of Wilts, 102 miles from London, in which manufactures of fine cloths are extensively carried on. The population amounted in 1801 to 1030, in 1811 to 1118, in 1821 to 1267, and in 1831 to 1323.

HORNSEY, a large village of the hundred of Ossulton, in the county of Middlesex, five miles north of London, on the ascent of a hill commanding a view over the city. It is one of those places in which the richer citizens have built their rural retreats. The New River winds in a pleasing manner through the lower parts of the parish. The population amounted in 1801 to 2716, in 1811 to 3349, in 1821 to 4122, and in 1831 to 4856.

HORNIPIPE, a common instrument of music in Wales, consisting of a wooden pipe, with holes at stated distances, and a horn at each end; the one to collect the wind blown into it by the mouth, and the other to carry off the sound as modulated by the performer.

HORNIPIPE is also the name of an English air, probably derived from the above instrument. The measure of this air is triple time, with six crotchets in a bar, four of which are to be beat with the hand down, and two up.

HOROGRAPHY, the art of making or constructing dials, called also dialling, horologigraphy, gnomonica, sciatherica, photosciatherica, and so on.

HOROLOGIUM, *ὡρολόγιον* (composed of *ὥρα*, *hora*, time, hour, and *λόγος*, *speech*, *discourse*), a common name amongst ancient writers for any instrument or machine for measuring the hours. (See **CHRONOMETER**.)

Modern inventions and gradual improvements have given birth to some new terms, and annexed meanings to others totally different from those which they originally had. All chronometers which announced the hour by striking on a bell were called *clocks*. Thus we read of pocket-clocks, though nothing would seem more absurd than to suppose that a clock, according to the modern idea, should be carried in the pocket. In like manner, all clocks which did not strike the hour were called *watches* or *time-pieces*; and the different parts of a striking clock were distinguished by the watch part and the clock part; the former meaning that part which measures the time, and the latter the part which proclaims the hours. In the report of Sir Isaac Newton to the House of Commons in 1713, relative to the longitude act, he states the difficulties of ascertaining the longitude by means of a watch; yet it is obvious, from several circumstances, that his remarks were directly to be understood of a time-piece, regulated by a pendulum; for his objections are founded on the known properties of the pendulum, some of which differ essentially from the properties of the balance and spring. It is also to be remembered that all the attempts of Huygens for finding the longitude were by means of pendulum clocks which did not strike the hour, and which consequently, according to the language of the times, were called *watches*. At this time such machines for measuring time as were fixed in one place were called *clocks* if they struck the hour; if they did not strike the hour, they were called *time-pieces*; and when constructed with greater care, for a more accurate measure of time, they were called *regulators*. Some artists have affected to call such watches as were constructed for astronomical and nautical observations by the name of

time-pieces, probably to intimate that they possess the advantages of those constructed with a pendulum.

HOROPTER, in *Optics*, is a right line drawn through the point where the two optic axes meet, and parallel to that which joins the centres of the two eyes, or the two pupils.

HOROSCOPE, in *Astrology*, the degree or point of the heavens rising above the eastern point of the horizon at any given time when a prediction is to be made of a future event, as, the fortune of a person then born, the success of a design then laid, the weather, and so on. The word is composed of *ὥρα*, *hora*, hour, and the verb *σκηπαι*, *video*, I behold. Such was at one time the infatuation concerning horoscopes, that Albertus Magnus, Cardan, and others, are said to have had the temerity to draw that of Jesus Christ.

HOROSCOPE is also used for a scheme or figure of the twelve houses or signs of the zodiac, in which is marked the disposition of the heavens for any given time. Thus we say, to draw a horoscope, to construct a horoscope, and the like. *Calculating a nativity*, is when the life and fortune of a person are the subject of the prediction.

HORREA, in Roman antiquity, were public magazines of corn and salt beef, out of which the soldiers were furnished on their march along the military roads of the empire. *Horrea* was also the name given to their granaries.

HORROX, **JEREMIAH**, an English astronomer, and the first who observed the passage of Venus over the sun's disc, was born at Toxteth, Lancashire, about 1619. Having acquired some grammatical learning at a school in the country, he was sent to Emmanuel College, Cambridge, where he spent some time in the ordinary routine of academical studies. About 1633 he began to turn his attention to astronomy, and spent some years, with little profit, in studying the writings of Lansbergius. In 1636, he became acquainted with Mr William Crabtree of Broughton, near Manchester, who was engaged in similar pursuits; and both occasionally consulted Mr Samuel Foster, professor of astronomy at Gresham College, London. Horrox, having thus obtained a companion in his studies, resumed them with fresh vigour; he laid aside Lansbergius, whose tables he found as erroneous as his hypotheses were inconsistent; and having procured books and astronomical instruments, he applied himself at once to the theory of the science, and to the observation of the heavens. But whilst thus full of hope and of promise, he was suddenly cut off, on the 3d of January 1641, soon after he had completed the twenty-second year of his age. A short time before his death he had completed his *Venus in Sole Visa*. This interesting phenomenon he had observed at Hoole, near Liverpool; but his observations did not appear till 1662, when Hevelius published them at Dantzic, with some of his own, under the title of *Mercurius in Sole visus Gedani anno 1661, Maij 3, cum aliis quibusdam rerum celestium observationibus rarisque phenomenonis; cui annexa est Venus in Sole pariter visa anno 1639*. Besides this work, he had commenced another, in which he proposed to refute the hypotheses of Lansbergius, and to draw up a new system of astronomy agreeably to celestial observations, but for the most part conformable to the Keplerian laws. Of the papers which Horrox left behind him, all that escaped destruction were published by Dr Wallis in 1673, under the title of *Opera Posthuma*. (A.)

HORROR strictly signifies such an excess of fear as makes a person tremble.

HORROR of a Vacuum, was an imaginary principle amongst the ancient philosophers, to which they ascribed the ascent of water in pumps, and other similar phenomena, which are known to be occasioned by the simple weight or pressure of the atmosphere.

Horopter
||
Horror.

H O R S E.

Introduc-
tion.

THE Horse is a distinct genus belonging to the order of *Bellua*, or large beasts, and in himself the most serviceable of all quadruped animals, as well as the swiftest of those brought under the dominion of man. Notwithstanding these high qualifications, ancient history informs us, that, in the primitive ages of the world, the ass was used in preference to him, not only as a mere beast of burthen, but for the purpose of conveying, from place to place, persons of the highest distinction. This, however, may be satisfactorily accounted for. Previously to the art of horsemanship being known, the ass, a superior race of animal perhaps to that generally found in Europe, was more easily managed than the horse, and better suited to the kind of food usually met with for his support. He was, in fact, found to answer every purpose of horses, until mankind increased in numbers and in wealth, when the complicated interests that were the result brought their services into use, and they were trained to the art of war. But another reason may be given for the late introduction of horses. Their use was interdicted by the Almighty in the early ages of the world, first, lest his favourite people, the Israelites, should be led to idolatry, by carrying on commerce with Egypt; secondly, by their dependence on a well appointed cavalry, they might cease to trust in the promised aid of Jehovah; and, thirdly, that they might not be tempted to extend their dominion by such means, and then, by mixing with idolatrous nations, cease in time to be that distinct and separate people which it was His intention they should be, and without which the prophecies relative to the Messiah could not be fully accomplished. Thus, in the Book of Psalms, the horse commonly appears only on the side of the enemies of God's people; and so entirely unaccustomed to the management of him were the Israelites, at the period of their signal defeat of the Philistines and other idolatrous nations, that David, their commander and king, caused the greater part of the horses of the cavalry prisoners to be cut down, from his ignorance of any use to which he could apply them. In the reign of Solomon, however, a cavalry force was established, but to no great extent.

In the infant state of all nations, indeed, we can readily account for the restrictive use of horses. A great deal of land that might be applied to the production of human food is requisite for their maintenance in all countries; and, in hot and sterile ones, the camel answered better, and was found ready at hand. It is true they were used in the armies of the ancient Greeks and Romans, which were not considered as complete without them. In Greece they were not so numerous; but in a war with the Italic Gauls, the Romans are said to have had no less than seventy thousand horses, and seven hundred thousand foot, to attack their formidable enemies.¹ The army of Xerxes, when reviewed by him at Dorica in Thrace, after it had passed the Hellespont, is reported by Herodotus, contemporary with him, to have contained eighty thousand horse; but the judicious reader will be inclined to make considerable abatements from the boasted amount of that celebrated but ill-fated expedition, resting, as it does, entirely on the authority of Grecian writers, who represented facts in the light the most unfavourable to their enemies, and the most glorious to their own gallant countrymen.

As in the scale of excellence, the horse ranks first of all animals coming under the denomination of cattle, and, as Buffon justly says of him, "possesses, along with grandeur

of stature, the greatest elegance and proportion of parts of all quadrupeds," it is not a matter of surprise, that, as an image of motive vigour, he should have been the subject of the chisel and the pencil of the first artists in the world, or that the description of him by the pen should have been not considered as unworthy the greatest writers of antiquity. But it is in his native simplicity, in those wild and extensive plains where he was originally produced; where he ranges without control, and riots in all the variety of luxurious nature, that we can form an adequate idea of this noble animal. It is here that he disdains the assistance of man, which only tends to servitude; and it is to a description of his release from this servitude, his regaining his natural liberty, that we are indebted for two of the finest similes of the immortal Greek and Roman epic bards. The return of Paris, with Hector, to the battle of Troy, is thus given in the sixth book of the *Iliad* :—

"Ὡς δ' ὅτι τις στατὸς ἵππος, ἀκούσας ἐπὶ φάτῃ,
Δορὸν ἀπορρήξας θυῖν πιδίῳ προαίειν,
Εἰώθως λοιπὸν ἵππεύς ποταμῶν,
Κυδίων ἰψὺ δὲ κατὰ ἵχθυ, ἀμφὶ δὲ χαίται
Ὡμῶς αἰσθύνται· ὁ δ' ἀγλαΐῃσι πεποιθὼς,
Ἴμεθα ἰ γούνα φέρει μετὰ τ' ἤδη καὶ ταυρὸν ἵππον."

And Virgil is considered to have even exceeded Homer, in that splendid passage in the eleventh book of the *Æneid*, where Turnus turning out fully accoutred for the fight, is compared to a horse that has just broken loose from his stall :—

"Qualis, ubi abruptis fugit præsepia vinculis,
Tandem liber equus, campoque potitus aperto,
Aut ille in pastus armentaque tendit equarum,
Aut, assuetus aquæ perfundi flumine noto,
Emicat, arrectisque fremit cervicibus alte
Luxurians; luduntque jubæ per colla, per armos."

It is impossible, at this distance of time, to fix upon the native country of the horse, as he has been found, in various forms, and of various sizes, in every region of the Old World. The difference in size is easily accounted for. The origin of all animals of the same species was doubtless the same in the beginning of time, and it is chiefly *climate* that has produced the change we perceive in them. Warmth being congenial to his constitution, and cold naturally injurious to him, he is produced in the most perfect form, and in the greatest vigour, when subject to the influence of the one, and not only diminutive, but misshapen and comparatively worthless, when exposed to the evils of the other. Buffon, however, is wrong in making the horse indigenous to Arabia, as is clearly proved by a reference to the Sacred Writings. In the reign of Saul, horse-breeding had not yet been introduced into Arabia; for, in a war with some of the Arabian nations, the Israelites got plunder in camels, sheep, and asses, but still no horses. Even at the time when Jerusalem was conquered and first destroyed by Nebuchadnezzar, Arabia appears to have been without horses, as the Tyrians brought theirs from Armenia. That the earliest available uses of the active powers of horses was adopted by the Egyptians, the same authority satisfies us; for we read in the third chapter of Genesis, that when Joseph carried his father's remains from Egypt to Canaan, "there went up with him both chariots and horsemen." One hundred and fifty years afterwards, the horse constituted the principal strength of the Egyptian

¹ See Duncan's *Discourse on the Roman Art of War*.

Race-Horse.

army; Pharaoh having pursued the Israelites with "six hundred chosen chariots, and with all the chariots of Egypt." The earliest period now alluded to was 1650 years before the birth of Christ; and 1450 years before that event, the horse was so far naturalized in Greece, that the Olympic Games were instituted, including chariot and horse races.

The origin of the native horse of our own country is now merely a question of historical interest, the discussion of which would not lead to much practical benefit. That experiments, founded on the study of his nature and properties, which have from time to time been made to improve the breed, and bring the different varieties to the perfection in which we now find them, have succeeded, is best confirmed by the fact of the high estimation in which the horses of Great Britain are held in all parts of the civilized world; and it is not too much to assert, that, although the cold, humid, and variable nature of our climate is by no means favourable to the production of these animals *in their very best form*, we have, by great care, and after a lapse of nearly two centuries, by our attention to breeding, high feeding, and good grooming, with consequent development of the muscles, brought them to the highest state of perfection (with one exception¹) of which their nature is susceptible. They may be classed under the following heads, and treated of individually, viz. the Race-Horse, thorough-bred and not thorough-bred; the Hunter; the Hackney, for various purposes; the Charger; the Troop-Horse; the Coach, Chariot, and Gig Horse; the Stage-coach and Post Horse; and the Draught or Cart Horse.

THE RACE-HORSE.

Although we may safely pronounce that the native-breed of English horses, however esteemed for other purposes, could not *race*, in the present acceptation of that word, yet it is equally obvious that they formed the parent stock of the renowned English racer. The first step to improve it by a cross with eastern blood, appears to have been taken by James the First, who gave the enormous sum (in those days) of L. 500 for an Arab stallion, which, however, the Duke of Newcastle, in his work on Horsemanship (great authority at that time), wrote down, on account, chiefly, of his comparatively diminutive size. At the Restoration, however, there appears to have been a tolerably good breed of horses in England, which Charles the Second improved by an importation of Barbs and Turks, whose blood was engrafted on the original stock, already very considerably ameliorated by the services of a stallion called Place's White Turk, imported by Oliver Cromwell's Master of the Horse, who bore that name; and afterwards by those of the Helmsley Turk, followed by Fairfax's Morocco Barb. The change was at this time so visible, that the Lord Harleigh of that day expressed his fears lest it might be carried to such an extreme as to extirpate the strong and useful horse, which, perhaps, the majority of his countrymen were well satisfied with before. In the latter end of Queen Anne's reign, however, the first great trump turned up, to secure future success. This was a stallion, called Darley's Arabian, purchased in the Levant, by a Yorkshire merchant of that name, although without any real attestation of his pedigree, or country. The prejudice against Arabians, and other eastern horses, the effect of the Duke of Newcastle's anathema against them, having now, for the most part, subsided, a good deal of their blood had been infused into the mares of that day, when another stallion, whose services were still more signal, accidentally made his appearance. We allude to the Godolphin Arabian, as he was called,

Race-Horse.

purchased out of a cart in Paris, and consequently of uncertain caste, but evidently the horse of the Desert; who, as will be hereafter shewn, may be said to have won the game. Although at first thought so meanly of, as only to be used as a teaser, yet, fortunately for the Turf, he lived twenty years after his services became notorious (by the accident of his being the sire of a capital racer, out of a mare which the stallion to which he was teaser refused to cover), and, strange to say, no very superior race-horse has appeared in England, for many years, that cannot be traced to his blood. The success of this horse was much facilitated by the lucky coincidence of his arrival in England at a critical time, that is to say, when the stock from Darley's horse, and the several Arabs, Barbs, and Turks, together with the Royal Mares imported by Charles the Second, had been "crossed," as the term is, on each other; and had produced mares worthy to be the channel of imparting his own transcendent qualities to posterity. Taking it for granted, then, that the English race-horse is descended from Arabian, Turkish, and African (Barb) blood; and also taking into consideration the various peculiarities in the form and power of each of those kinds, requiring modification of shape, qualities, and action suited to the purposes for which they were intended, it cannot be denied, that a task of no ordinary difficulty was imposed on the English horse-breeders, and that they have executed that task with a masterly hand. If other countries furnished the blood, England has made the race-horse.

With the exception of one Eastern horse, called the Wellesley Arabian, the grandsire of a winner of the Oaks in 1826, also of Dandizette, who ran second for that stake in 1823, and one or two more good runners, the English Turf has benefited nothing, during the last half century, from the importation of foreign blood. The fact is, that having once gotten possession of the essential constitutional parts necessary to form the race-horse, and which will be described hereafter, we ourselves have, by a superior knowledge of the animal, and the means of availing ourselves of his capabilities, not only by rearing and training, but by riding him also, brought him to a pitch of excellence which will not admit of further improvement. Superior as is the air of the desert, which is said to be so free from vapours, that the brightest steel is not affected with rust, if exposed to it for a night, to that of our humid and ever-varying climate; and propitious as it must be to animals found, *as the horse was found*, in the greatest perfection when reared in it; yet were the finest Eastern horse that could be procured, brought to the starting-post at Newmarket, with the advantage of English training to-boot, he would have no chance at any weight, or for any distance, with even a second-rate English race-horse. It may not, however, be uninteresting to point out what are the essential racing points originally imparted to the horse of our own breed by these foreign stallions and mares, and without which they never would have arrived at any thing approaching the excellence which they have, for the last century, attained.

A good deal of pains has been taken to define the meaning of the term "blood," as applied to the horse called thorough-bred. Osmer, an old but accredited writer on the Horse, pronounced it to be a certain elegance of parts, derived from air, climate, and food, which, being suitable to the true natural conformation of the animal, enables him to perform extraordinary feats of activity and motion, coupled with great endurance of the highest bodily exertion; and hence the expression, "he shews a vast deal of blood," means nothing more than that he is a truly formed race-horse. Where, he asks, is the blood of the Ostrich, whose speed is so great, that it can "laugh at the horse

¹ The exception is the English cart-horse, as will be stated hereafter.

Race-Horse.

and his rider?" "If the good qualities of the race-horse," says he, "depend upon blood, we could not, as we often do, see one horse very good, and his own brother, with equal advantages of good keep and training, very bad." It was the opinion of this writer, that it has been to the folly of expecting, that what is termed high-blood, in the Eastern horses, unaccompanied with essential form, will produce a racer, so many failures in the attempt to breed race-horses have occurred; that the virtue of what racing men call "blood," has been too much insisted upon, not being sufficiently influenced by the fact, that it can never be considered as independent of form and matter. We conceive there is a great deal of truth in each of the foregoing observations. Blood cannot be considered independently of form and matter, inasmuch as the excellence of all horses must depend on the mechanism of their frames, which, if duly proportioned, and accompanied with superior internal, as well as external organization, gives them stride, pace, and endurance. The quickness of repeating this stride also, and the power of continuance, will depend upon vigour of muscle, capacity of chest, and strength of the constrained lungs. The result, then, of this argument is, that when we speak of some of the celebrated stallions of former days having transmitted the good properties of their blood, or high eastern descent, to the race-horses of the present time, we can only imply, that they have imparted that true formation of parts, that firmness of bone and sinew, and that general superior organization, competent to give facility of action; together with great powers of respiration, which will enable horses to last under the severest trials of their powers. In fact, their excellence is in a great manner mechanical. Were it not so indeed, did they not excel each other according to the degrees of difference in their form and shape, and all the constituent parts, full brothers and sisters would prove of equal goodness on the race-course, health and condition being on a par. But this is very far from being the case; and again, if it depended on blood, the same horse would run alike on every description of ground, which we know rarely happens; but of this we may be assured, that it is a superiority of muscular substance, united with justly proportioned shape, and not innate blood, which enables a horse to bear to be pressed, on any description of ground, still more so upon such as is severe, as several of our race-courses are.

Yet if there must be this elegance of form, these nice proportions in the limbs, or moving levers of the race-horse, how is it that so many of those called "cross-made," plain, and apparently disproportioned horses, possess the power or parts conducive to speed and action? If blood can be defined the peculiar elegance in the texture of the external parts, how happens it that several very ugly horses and mares have at all times distinguished themselves on the Turf? Are there certain occult causes, not discoverable to the eye, that produce this excellence to which the rules and laws of action appear to be opposed? On these points it may be observed, first, that the force and effect of muscular motion is nearly beyond our ken; and, secondly, such horses are really not misshapen, inasmuch as there are hidden virtues in the mechanism of their internal frames, which the eye cannot detect; and where deficient in one point, they are recompensed by additional powers in others. They possess the essential points, although not so elegantly displayed; and this, we believe, is the case with other animals than the horse; although, generally speaking, true symmetry in all is attended with corresponding excellence in their useful properties, and adaptation to the purposes of man.

Those persons who insist upon an innate quality in what is termed "blood," are led to believe that there is something in the *nature* of a thorough-bred horse, which enables him to struggle in a race far beyond his natural capabili-

ties, and which is distinguished by the term "game." We do not think there is. We learn from experience that horses often allow themselves to be *beaten* by others which are inferior to them, from sheer ill temper; but their efforts to *win* a race, we consider to be merely limited by their physical powers, the effect of a proper arrangement of their parts; and that the operation of the mind, or spirit, has nothing at all to do with it. The hero at the Olympic Games had, and the champion of the British boxing ring may have had, feelings which, from the superiority of their nature, and the fact of their character, interest, and future happiness, being all involved in the event, might have induced them to struggle even to the very verge of life; but the same sense of honour, and the same spirit of emulation, cannot be ascribed to the race-horse. If his own acting powers be unequal to those of others opposed to him in the race, he yields to that superiority, although it must be admitted, that what are called sluggish horses will not try to exert themselves to the utmost, unless urged to it by the spur and whip; and others, when spurred and whipped, slacken, instead of increasing, their speed. The final result of this discussion then is, that when, as has been previously suggested, we speak of such horses as King Herod, Highflyer, or Eclipse, having transmitted their blood to the past and present generations of running horses, we can only admit that they have transmitted that true formation of parts necessary to enable them to run races at a prodigious rate of speed, and to endure the severity of training for them.

Although we have spoken in disparagement of horses of the East as racers, upon the same terms with those of our own breeding, we are willing to allow them the merit of being the parent stock of all our racing blood; as it is quite evident the indigenæ of our own country, or of those European ones which approximate to it, would never have produced the sort of race-horse now seen on the British Turf. The nature and character, indeed, of the horse of the Desert, are peculiarly adapted to an animal who, like the race-horse, is called upon to put its physical powers to the severest test to which nature, aided by art, can submit. In the first place, the Arabian horse possesses a firmness of leg and sinew unequalled by any other in the world. This excellence, which he owes to climate, arises from his having larger muscles and *smaller bone* than other horses have;—muscles and sinews being the sole powers of acting, and on them depend the lasting qualities of an animal going at the top of his speed. Bones being the weight to be lifted, serve only to extend the parts; and it is evident, that such as are small, but highly condensed, like those of the deer, and the horse of the Desert, are, by occupying less space, and containing less weight, more easily acted upon by muscular force, than such as are large and porous, and for a greater duration of time, without fatiguing the acting powers. But the excellence of the Arabian horse, or horse of the Desert, does not end with his highly condensed bone, and flat and wiry leg, so much esteemed by the sportsman. All the muscles and fibres of his frame are driven into closer contact than those of any other breed; and, by the membranes and ligaments being composed of a finer and thinner substance, he possesses the rare quality of union of strength with lightness, so essential to the endurance of fatigue in all quick motions. He thus moves quicker and with more force, by reason of the lightness and solidity of the materials of which his frame is composed; and when to these qualifications, are added the peculiar and deer-like elegance of his form, and extraordinary share of muscular power for his inches, he appears to furnish all the requisites of the race-horse on a small scale.

We have already accounted for the present breed of English race-horses being no longer susceptible of improve-

Race-Horse.

Race-Horse. ment from any foreign blood. But it is worth inquiring into the reason of the improvement of the horse of the Desert, and indeed of all the countries of the East, not advancing towards perfection, as that of our own breed has done. No doubt it was intended that we should improve upon animal nature, as we improve our own, and nowhere has the attempt been so successful as upon our varieties of domestic cattle; but the horse of the Desert now, if he have not retrograded in his good qualities, is the same animal that he was nearly two centuries back. With the exception of the Wellesley Arabian, said to have been bred in Persia (but the assertion is unaccompanied by proof), who measured fifteen hands two inches high, all the rest that have been imported have been little better than Gallows, which must be attributed to two causes; first, the want of being forced, as our own horses are, in their colthood, by high keep; and, secondly, by adhering too closely to the indigenous breed, or that whose blood is unmixed, by which means it has dwindled. Accurate observers must have noticed, that the greater part of the horses brought to this country as Barbs and Arabians, have exhibited a palpable deficiency in the points contributing to strength, and the want of general substance is apparent at first sight. It is true that, of late years, their estimation has so diminished in this country, that no great pains have been taken to procure stallions of the highest caste, and scarcely any mares have been imported; and several of those sent over have been accompanied by very unsatisfactory pedigrees. We are, however, inclined to think that, as the immediate descendants of such horses are found quite inefficient as race-horses, and but few of the second or third generation have turned up trumps, unless as a rational experiment, the breeding of *race-horses* from Arabians is at an end.

In corroboration, however, of the good qualities of form and texture of this comparatively Lilliputian breed, we give the following extract from a letter of the late Captain Gwatkin, head of one of the Honourable India Company's studs, on the subject of crossing the English thorough-bred horse with foreign blood, dated Hauper, Bengal, September 1828, to shew, by their rate of going, their great endurance under the combined pressure of weight and speed; for to have run these lengths in the time specified, their height only averaging fourteen hands one inch, and of course unfavourable to speed, in addition to the ground being sandy, and therefore void of elasticity, the pace must have been severe from end to end of the course. Unfortunately the ages are not given, or a still better judgment would be formed of the lasting powers of these little animals under more than average weight.¹

Run at Bengal.

Name.	Weight. st. lb.	Time.	Distance.
Patrician.....	9 0	5 34	{ 280 yards, less 3 miles.
1807. Antelope.....	9 0	6 4	...2½ miles.
1809. Patriot.....	9 6	6 46	{ 3 miles and 325 yards.
Sulky (sent to England)....	9 0	6 25	{ 3 miles and 325 yards.
Oddsobbs.....	9 0	{ ran second in the above race.	
1818. Sir Lowry.....	7 4	4 0	...2 miles.
1820. Nimrod.....	8 10	4 6	...2 miles.
Sultan (not 14 hands).....	8 12	6 16	...3 miles.
1826. Paragon (sent to England).11	0	4 20	...2 miles.
Esterhazy.....	11 7	3 42	...1¼ miles.
Cavalier (not 14 hands).....	8 7	4 4	...2 miles.
1827. Champion.....	11 7	3 44	...1¼ miles.
1828. Barefoot.....	8 4	6 7	{ second heat of 3 miles.

Name.	Weight. st. lb.	Time.	Distance.	Race-Horse.
1828. Cornet.....	8 4	ran second to Barefoot.		
Chapeau de Paille.....	8 3	2 58	...1½ miles.	
Redgauntlet.....	9 0	5 6	...2½ miles.	
Botherem.....	9 3	2 58	...1½ miles.	
Run at Poonah.				
1827. Pyramus (not 13 3).....	9 0	4 8	...2 miles.	
1828. Dragon.....	8 8	4 4	...2 miles.	
Run at Bombay.				
1827. Slyboots.....	8 5	4 2	...2 miles.	
Gaslight.....	9 0	6 16	...3 miles.	
Creepers.....	8 6	4 2	...2 miles.	
Run at Baroda.				
1827. Harlequin.....	8 4	6 9	...3 miles.	
Run at Madras.				
1828. Orelia.....	9 0	4 0	...2 miles.	

We have reason to believe, that the best use to be made of Eastern horses, would be for the production of the English hunter, by the best-shaped hunting mares, nearly thorough-bred. By the help of the dam, and our present improved system of keeping young horse-stock, there would be little fear of the produce not coming to a good size, even in the first generation, as it is, for the most part, the property of these horses to beget stock larger than themselves; but by crossing the female produce in the second with our large thorough-bred horses, hunters for heavy weights might be looked for, with every prospect of success. We know that the virtue of the blood, or constituent parts, of the horse that was no racer (Marske, the sire of Eclipse, for example) has produced a racing son, by acquiring proper formation of parts from the dam; and if to the fine form of the English hunter, could be added the firmness of leg and sinew for which the Eastern horse is so conspicuous, but in which the English hunter is too often deficient, in conjunction with the larger muscles, more highly condensed bone, and well-known powers of endurance of the Eastern horse, not omitting his action, which is generally first-rate, but of which a proper judgment could be formed previously to the choice of the stallion, a great improvement upon our present race of hunters would be effected; and all such as were known to be thus bred, would meet a ready sale. It is a well known fact, that some of the most brilliant hunters England ever produced, were got by Arabian stallions; and one, by Lord Clive's Arabian, was decidedly the best horse in Leicestershire, in Mr Meynell's day, over every description of country. He was the property of the late Mr Childe, of Kinlet Hall, Shropshire, who is said to have been the first to introduce the present very spirited style of riding after hounds. A powerful Toorkoman stallion would not, we think, fail in getting hunters out of good English mares. That breed is the largest of any of the Eastern horses, owing to being reared on better land.

One word more on the subject of the Eastern horse, as connected with the English Turf. Owing to the doubts and uncertainties that hang over the pedigrees and countries of the most celebrated stallions and mares which laid the foundation of our present breed of racers, it is impossible to determine to which individual breed, whether to the Turkish, the Barb, the Arabian, or the Persian, are the greater advantages derived from them to be attributed. They appear to us to be pretty equally divided. To the Byerly Turk we are indebted for the Herod blood (sire of High-flyer); to the Godolphin Arabian, said to be a Barb, for the Matchem blood, the stoutest of any; to the Darley Arabian (the sire of Flying Childers), for the Eclipse blood; and to the Wellesley Arabian, believed to be a Persian horse, to the only real advantage gained to English race-

Race-Horse.

horses, by a foreign cross, in later years. It must, however, be observed, that the most famous horses of the last century, such as Childers, Old Crab, Eclipse, and King Herod, did not appear on the Turf before they were five years old; which leads us to suppose, that the failure of horses subsequently bred, as they themselves were bred, from Oriental blood, and trained at an early age, may, in great part, be attributed to the fact, of the immediate produce of such horses requiring more time to come to maturity, or even to a certain degree of maturity, than those, like our present breed of race-horses, further removed from such blood; and the cause may be attributed to climate. It is reasonable to suppose, that the produce of stallions and mares bred in the Torrid Zone, would come slower to perfection in a damper and colder country than it would have done in its own; and we may infer from this, that, in proportion as horses were brought earlier to the post, and races shortened in distance, Eastern blood got into disrepute.

Breeding the Race-Horse.

Amongst the many things in the history of Ancient Greece that have called forth the admiration of mankind, the celebrated games of Olympia claim the foremost place. Independently of their religious association, and advancement of literary spirit, they were highly serviceable to the country; and none proved more so than those at which horse-racing was introduced, which appear to have been completely established in the twenty-fifth Olympiad. That the improvement of the native breed of horses was the chief object of the government, is beyond all doubt, as it has been that of all others who have given encouragement to racing; and it is equally apparent, that the Thessalian courser, so highly extolled by Pindar, and likewise so terrible in war, was the result of a foreign cross. So essential, indeed, was this object considered in Greece, where horses were very scarce even after the time of Pindar, that it is stated, on the authority of Aretius, in a note on Pindar's second Isthmian Ode, that there was a general law in Greece, requiring all, who were able, to breed horses. As to what state of perfection their horses were bred in at this early period, is beyond the power of conjecture; but in Great Britain, from the highly cultivated knowledge of the mechanical structure of living bodies, with the junction of best shapes, although but for the stimulus given by racing, this knowledge would have been comparatively in its infancy, the horse has arrived at the highest state of perfection of which his nature is capable; and in whatever country, and in whatever climate, his racing powers are put to the test, he has scarcely found a rival, excepting under very disadvantageous circumstances. It is true his *lasting* qualities were doubted, and he was challenged to rebut the charge; and the following was the result. On the 4th of August 1825, two second-rate English racers, Sharper and Mina, contended against the most celebrated Cossack horses from the Don, the Black Sea, and the Ural, in a race of the cruel length of forty-seven miles. At starting, Sharper and Mina ran away with their riders more than a mile, and up a steep hill, when the latter horse broke down, and pulled up. Half the distance was run in an hour and forty minutes. In the last half, only one of the Cossack horses was able to contend with Sharper, who, notwithstanding every foul advantage was taken by changing the weight, and dragging along his opponent by a rope, won his race in gallant style, performing the distance in two hours and forty-eight minutes. At starting, the English horses carried three stone more weight than the Cossacks; and, during the latter half of the race, the one Cossack who remained in it was ridden by a mere child.

From the great export trade to the Continent of English horses, and particularly those of full blood, joined to the

low price of horse-food during the last twenty years, and on which there is not much prospect of an advance, occupiers of land cannot turn their attention to a much surer source of profit than that of breeding horses, provided they go judiciously to work. But, unfortunately for the speculators in this branch of rural economics, too much is left to chance and experiment, and thus horse-breeding becomes absolutely a matter of speculation, instead of a matter of judgment. It is true, those noblemen and gentlemen whose studs have become eminent on the Turf cannot be included in this charge; but even with the benefit of great experience, and various other advantages, the utmost exercise of their judgment is required, to insure even a prospect of success against such a field as they have to contend with. Having said this, we will lay down a few practical rules for breeding and rearing the various kinds of horses now used in Great Britain, commencing, as before stated, with that of the Race-Horse.

In the first place, it may be observed, there has been a great deal of discussion in various publications on Sporting, but to very little purpose, on the much agitated question, "What constitutes full blood, or, what is termed, a thorough-bred horse?" We consider this question as very easily decided; the term "thorough-bred horse" merely implying one that can be traced through the Stud-Book, by sire and dam, to any Eastern stallion, or to what were called the Royal Mares, imported by Charles the Second, as they, together with two or three of the first imported stallions, form the *ne plus ultra* of all racing pedigrees. As to the assertion, that, for a horse to claim the title of thorough-bred, it is necessary he should be of pure Oriental descent, it cannot for a moment be supported; as, independently of the fact, that only two mares are stated in the Stud-Book, or elsewhere, on authority, to have been imported into England, in the early days of racing, it is well known that the first British race-horses were those of British breed, changed, ameliorated, and, at last, perfected by the admixture of Eastern blood, and judicious crossing afterwards.

The effect of what is called crossing blood is as follows: The first cross gives one-half, or 50 per cent.; the second 75 per cent.; the third $87\frac{1}{2}$ per cent.; and the fourth $93\frac{3}{4}$ per cent. In sheep, after this, if the ewes have been properly selected, the difference in the wool between the original stock and the mixed breed is scarcely perceptible; but with the horse, the breeder must not stop here, if he means to produce a race-horse; and a curious fact is stated respecting sheep, on the authority of the Count Veltheim, of Brunswick, an extensive breeder of that species of stock. "It has frequently occurred to me," says he, "that rams, which, after an improvement of four or five descents, have rivalled all the *visible* qualities of the purest Merinos, when employed in propagation, have got very ordinary lambs, and consequently they are not fit to be used for breeding. On the other hand, a fact may be stated, wherein, after a very opposite cross, pure blood, with evident improvement upon the original stock, was procured on the eighth descent. The late Lord Oxford, very celebrated for his greyhounds, finding them degenerating in courage, crossed his best bitches with a bull-dog. The result was, after several recrossings with pure blood, that breed of greyhounds for which he was so eminently distinguished. The immediate descendants, however, of the Eastern horses, have almost, without an exception, proved so deficient of late years, that our breeders will no more have recourse to them, than the farmer would to the natural oat, which is little better than a weed, to produce a sample that should rival that of his neighbours, in the market."

Much speculation has also been indulged in, as to the effect of close affinity, in breeding the race-horse, or what is called breeding in-and-in; a system which has eminently succeeded in breeding cattle, and also with Lord Egremont's

Race-Horse.

Race-Horse.

racings stud. Beginning with Flying Childers, several of our very best racers have been very closely bred; and it certainly appears reasonable that, as like is said to produce like, if we have high form and superior organization in an own brother and sister, that high form and superior organization would be very likely to be continued to their incestuous produce. In a work called "Observations on Breeding for the Turf," published a few years back, by Nicholas Hankey Smith, who resided a long time among the Arabs, the author gives his opinion, that colts bred in-and-in show more blood in their heads, are of better form, and fit to start with fewer sweats, than others; but when the breed is continued incestuous for three or four crosses, the animal, he thinks, degenerates. By breeding in-and-in, however, he does not insist upon the necessity of breeding from brother and sister, or putting a mare to her own sire, or the sire to her own dam; but after the first cross, to return to original blood. A recent proof of the good effect of a close affinity in race-horses may be found in the produce of the dam of his late Majesty's favourite mare Maria. By those celebrated stallions, Rubens and Soothsayer, they were worthless; but by Waterloo and Rainbow, grandsons of Sir Peter, and thus combining much of her own blood, they could run to win.

We now come to the most certain source of producing good racers, namely, the choice of stallions and mares, and the treatment of the produce in their colthood. But as regards the two first-named requisites, reference must be had to the parts of the country in which horses are intended to run. If, for the short races of Newmarket, so much the fashion of the present day, a differently formed animal would be required to one intended to clear his way on the provincial courses. But whether it be one description of a race-horse or another, although the laws of nature are not always certain, a proper junction of shape, or similarity in formation of horse and mare, together with a due regard to blood, gives the fairest prospect of success. We admit it is difficult to account for the degrees of excellence between the running of two full brothers or sisters, where it does not arise (a common case we conceive) from some violence or impression on the womb, when the fœtus is in a soft state, or from a decline in the constitution of the mare, subsequent to her last produce; but when we find the produce of two highly-bred animals, both proved to be good, and with a proper admixture of blood, unable to race, we can attribute it to no other cause than a dissimilitude of parts in the horse and the mare, or a similitude of some parts tending to an extreme in both. Without going so far as to assert that there is no innate quality in blood, we may safely pronounce it so far from being, as some have supposed it to be, independent of form and matter, that, unless accompanied with suitable form and action, it is of very little value in a race-horse. "Sometimes," as Sancho says, "we look for one thing and find another;" but we know of no instance of a bad misshapen horse and a bad misshapen mare, however highly bred, producing good runners.

The first and most important point in the choice of a blood-mare for a racing stud, is the soundness of her constitution and limbs; although, of course, it is desirable she should be of good size and shape, with substance. How highly so ever she may be bred, and however well she may have run, if she have not a sound frame, she cannot be depended upon to breed racers. If she have never been trained, of course the risk is increased; but, in either case, her form and action must not be overlooked, as it too often is, rendering the breeding of thorough-bred stock a mere matter of chance. Should she have appeared in public, her racing capabilities are to be consulted. For example, if pace (speed) was her best, as the jockies say, a stallion should be selected, who, by the known stoutness of his running, is likely to tie

her produce to pace, or, in other words, to give them both speed and endurance in a race. Her frame should be roomy, or her produce will be apt to be small, although, it must be admitted, there are exceptions to this rule. She should be of, what is termed, fashionable blood, for, if she be not, and her produce should come to the hammer, *previous to trial*, they would prove utterly worthless in the market.

It cannot admit of a doubt, that it is trespassing on the powers of nature to expect a mare, or any other female animal, to nourish her fœtus, in embryo, so perfectly during the time she is giving suck, as if she were dry or without milk. Nevertheless, it is customary to put all blood mares to the horse the ninth day after foaling, and it is almost too much to expect that the owners will let them lie fallow, although they may in some measure resemble the man who cut up his goose to get at the golden egg. During the period of gestation, however, the thorough-bred mare should be highly kept. All animals well fed, produce their species of a superior description to those which are not well fed; and nothing more forcibly shows the beneficial effect of warmth in rearing superior varieties of the horse, than that the half-starved horse of the desert should be as good as he is even now found to be.

In a racing-stud, the period of putting mares to the horse is much earlier in the year than that of any other sort, by reason of their produce being almost always called upon to go into work before they are two years old. In fact, they can scarcely be dropped too soon in the commencement of a new year, where proper accommodations are provided for them. A peep into the three volumes of the Stud-Book will satisfy inquirers into these matters, that some mares have produced more than twenty colts and fillies, and, in a few instances, the greater part of them proved good runners; but, we should be inclined to think that the average would not exceed six, as the produce of each mare. It sometimes occurs that mares are put into a breeding-stud, when affected by severe lameness in the feet. When this is the case, the operations of neurotomy or unnerving is recommended; as pain, by producing fevers, not only is injurious to the formation of the fœtus, but often causes abortion. Bad, putrid, smells, or being struck on the nose, also produce abortion in brood mares.

Virgil, in his excellent remarks on breeding horses, tells those of his readers who wished to gain a prize, to look to the dam; and, until of very late years, it was the prevailing opinion of Englishmen, that, in breeding a racer, the mare is more essential than the horse to the production of him, in his highest form, and we know it to have been the notion entertained by the late Earl of Grosvenor, the most extensive, though not perhaps the most successful, breeder of thorough-bred stock England ever saw. The truth of this supposition, however, has not been confirmed by the experience of the last half century, and much more dependence is now placed on the stallion than on the mare. The racing calendar, indeed, clearly proves the fact. Notwithstanding the prodigious number of very highly bred and equally good mares that are every year put to the horse, it is from such as are put to our very best stallions that the great winners are produced. This can in no other way be accounted for, than by such horses having the faculty of imparting to their progeny the peculiar external and internal formation absolutely essential to the first-rate race-horse; or, if the term "blood" be insisted upon, that certain innate but not preternatural virtue, peculiarly belonging to some horses but not to others, which, when it meets with no opposition from the mare, or, in the language of the stable, when "the cross nicks" by the mare admitting of a junction of good shapes, seldom fails in producing a race-horse, in his very best form. It is obvious, then, that owners of racing-studs should not hesitate

Race-Horse.

Race-
Horse.

at paying the difference between the price of a first-rate stallion and an inferior one; and there is always one of the former to be found, to suit every description of mare. Breeders of all kinds of horses, but of the race-horse above all others, scarcely require to be cautioned against purchasing, or breeding from, mares, or putting them to stallions, constitutionally infirm. By "constitutionally infirm," is chiefly implied having a tendency to fail in their legs and feet, during their training, which too many of our present racing-breed are given to; although the severity of training is not equal to what it was some years back. It would be invidious to particularize individual sorts; but we could name stallions and mares, from which the greatest expectations were raised, whose progeny have sacrificed thousands of their owners' money, entirely from this cause. It having been clearly shewn, not only in theory but in practice, that the diseases and defects of horses are for the most part hereditary, we may be induced to give credit to the assertion, that the Arabians, after having brought their breed of horses to the highest pitch of improvement of which they themselves considered them capable, have preserved their chief perfections, namely, great endurance of fatigue, with highly organized matter, and natural soundness of limb,—by restricting the use of stallions until approved of by a public inspector of them. Indeed, in several European states, similar precautions are taken, and stallions are provided by their governments, for the use of farmers and others who breed horses, and care is taken in the selection of them to avoid all such as have proved naturally unsound, or been affected by any disease, the influence of which may be hereditary. No part of veterinary pathology is more interesting than that which relates to the hereditableness of disease; and, as an eminent French writer (Professor Dupuy), on the veterinary art, observes, "That person will render an important service to his country, and to rural economy in general, who may show, by incontestible evidence, that those organic diseases (farcy and glanders) are very often hereditary. I knew a mare whose body on dissection presented every appearance of glanders; her filly died at the age of 4½ years of the same tuberculous affection. The other offspring of this mare inherited her particular conformation, and her propensities to bite and kick." The Professor produces three similar instances of inherited disease, all of which, he says, were too evident and well-marked to admit the possibility of any serious mistake, and were attested by the professors of the Veterinary School at Alford. Similar observations follow in relation to the diseases of oxen, cows, sheep, and swine, as also of ophthalmia in horses, all of which are transmitted from one generation to another, the effect of hereditary influence. "These considerations," continues the Professor, "to us are of the greatest moment, since we have it in our power, by coupling and crossing well-known breeds, to lessen the number of animals predisposed to these diseases. Acting up to such ideas, our line of conduct is marked out. We must banish from our establishments, designed to improve the breed, such animals as show any signs of tuberculous disease, or any analogous affection. Above all, no stallion should be allowed to remain in a wet or cold situation, in consequence of the evils likely to result therefrom."

In consideration of the preference given to the stallion over the mare, in the propagation of racing-stock, may be quoted the following passage, from Part 3d of Percival's *Lectures on the Veterinary Art* (London 1826). "It might be supposed that the part the male takes in fecundation is comparatively a very unimportant one; it must be remembered, however, that the copulative act is the essential first cause, that therein the action of the organs is na-

tural and sympathetic, and that the result is the generation of a new animal, bearing a likeness to one or both of the parents; from which it would appear, although the physical part of the male is simply to project the sperm into the female, who alone has the power of rendering it efficacious, that the influence of the sperm is much greater in the generative process than we seem to have any notion of, or at least than we have been able to reveal the nature of in physiology."¹

Race-
Horse.

Rearing of Young Racing Stock.

Under all circumstances, there is too much resemblance between the speculations of the Turf and a lottery; but, as the prizes it exhibits are valuable, the most effectual means of obtaining them should be adopted. It signifies little what care and circumspection have been exercised in the selection of stallions and mares, with a view of breeding racers; the prospect of success is very limited indeed at the present day, unless the produce be reared according to the improved system acted upon in our first-rate racing establishments. Such was the pertinacity of opinion, combined with long-established prejudices, and in direct opposition to the daily acknowledged fact, of dry and warm countries having been the first to produce the horse in perfection, that it is only within a very few years that young thorough-bred stock has been reared in the manner in which it should be reared. A thorough-bred colt may now be said to be in training from the day on which he is dropped, so great is the care taken to force him into shape and substance. Not only is he drawing from the teats of his dam the milk of a highly fed animal, and consequently, in itself highly nutritious, but, before he is twelve months old, he eats nearly two bushels of oats per week. The time for expansion of frame is youth, and, when we see a two year old at the post, with eight stone four pounds on his back, which is to be seen in every meeting at Newmarket, and looking like a horse able to carry a light man after hounds, we most cordially assent to the answer given by the most experienced Newmarket trainer of the present age to the question, What is the best method of rearing a racing colt? "First observe," said he, "that the blood, or cross, is good; secondly, breed him as you would a sheep, from a roomy dam; and thirdly, give him as little green meat as possible, and as much corn as he will eat." The trainer we allude to has now retired, but he had all the young stock of the Duke of Grafton, and many of the first and most successful sportsmen in England, through his hands, and the annual disbursements of his establishment exceeded ten thousand pounds. That dry and hard food, as it is called, is the natural food of the parent stock from which our race-horses are descended, is beyond all doubt; and that the firmness of their acting parts is attributable to that, and to the warmth and dryness of the climate, is also admitted. Is it, then, to be wondered at, that breeders of horses, and not only of race-horses, have at length found out that dry food and warmth have the same effect in the Temperate as they have had, and now have, in the Torrid Zone? that they have discovered that, when colts are bred on rich succulent food, and subject to a humid atmosphere, the bulk of the body increases out of proportion to the strength of the bones; and to these predisposing causes are to be attributed most of the false points which we find in horses, such as fleshy shoulders, deficiency of muscle, weak pasterns, and flat feet? Virgil discovered this nearly two thousand years ago, and, when speaking in praise of Epirus, as suitable to the breeding of horses, emphatically observes:—

¹ See Lecture 59, On the Physiology of the organs of Generation, Male and Female, page 94.

"Continuo has leges æternaque fœdera cœcis,
Imposuit natura locis." Georg. 1, l. 60.

Race-
Horse.

Race-
Horse.

So careful, however, now are some of our principal and most successful breeders of race-horses to avoid these evils, that not only is a thorough-bred colt eating grass *ad libitum* become a rare sight, but he is not suffered to be exposed to rain, even in the midst of summer, no, not even to a temporary shower. The effect of rain upon horses' backs, is found to produce the worst of diseases—glanders, for instance, as is well known to all cavalry officers who have been on service with their regiments; and it cannot be innocuous to the highly-bred foal, or colt. That he should be sheltered from the cold of winter, need scarcely be insisted upon here, although we are rather inclined to think, that, in the generality of breeding establishments, he is more exposed to weather in the winter than he ought to be. There is no objection to a moderate allowance of carrots, and a little green food; but according to the old Greek proverb, ἄλλος βίος ἄλλα διαίτα, *another life, another diet*, we must hear no more of the "natural food" of an animal insisted upon by many, who is so far called upon to outstrip the laws of nature as to begin to work at fourteen months old, and to appear at the starting-post at two years old, displaying the form, character, and strength of one nearly arrived at maturity. Neither is the land on which a racing-stud is situated oftentimes sufficiently considered; but a want of such consideration has been the source of great loss. It is in vain to expect success unless upon that which is dry, and consequently of sound subsoil; and what is termed "upland ground" is most favourable. Walls, independently of security, are preferable to hedges, for inclosures to breeding paddocks, as the latter harbour flies, which are very injurious to young stock, and also to their dams, in hot weather; but the present small dimensions of breeding paddocks, not exceeding a quarter of an acre, and many still less, preclude the use of hedges.

Racing colts are physicked when foals, and periodically afterwards; their hoofs, also, are pared with a drawing-knife, that, by shortening the toe, the heel may have liberty to expand. Physic, in this case, may be termed the safety valve, and such it is in reality, for this system of forcing nature cannot be free from danger. It is found, however, materially to promote growth, as indeed does the work that our racing-colts perform at such a very early age. Muscular action produces muscular strength, and growth will be the result. We have seen a colt that measured upwards of fifteen hands in height on the day twelvemonth which he had been weaned from his dam.

Racing colts can scarcely be handled too soon:—

"Dum faciles animi juvenum, dum mobilis ætas,"

as Virgil says of the bulls; and Horace illustrates the necessity of early erudition of the human species by the excellence of horses which have been well broken in when young. The first breaking in of colts is also alluded to by Ovid, who, like Horace, is in favour of very *careful* treatment of them, and reminds us of the necessity of it in the following beautiful line:—

"Frœnaque vix patitur de grege captus equus."

The system of breaking colts, however, is not only thoroughly well understood in our racing establishments, but is accomplished with much less severity than it formerly was, and consequently with less danger to the animal.

The time of foaling is one of great interest to owners of valuable brood mares, and particularly so when the produce is engaged, perhaps heavily, or when they are of what is termed a running family. The attention of the stud-groom is directed by sundry forewarnings, the most palpable of which is what is called "waxing of the udder," and appearance of milk, which generally precede parturition

two or three days, but in some instances more. As the mare brings forth on her legs, there is little fear of the foal being overlaid by the mother; but the less she is disturbed the better, lest she should trample on its legs. Her treatment afterwards is now so well understood, that nothing requires to be said about it; but a bran mash, with from four to six ounces of nitre dissolved in it, given as soon as she has brought forth, keeps off fever. The great preventive of accidents to foals, is the simple contrivance of rollers on the sides of the door-frames, which secure them from being injured as they rush out of the hovel or shed by the side of their dams, especially in cases of alarm.

Some persons prefer purchasing to breeding young racing stock, and it is difficult to determine between the advantages and disadvantages of the systems. It is true that, in the first case, the purchaser has a certainty of some return for his money, inasmuch as he gets his colt or filly, which the breeder may never get, after incurring a great expense on the mare. The price of a promising yearling, from three to five hundred guineas, is a large sum to begin with; and we cannot, in this instance, say with Varro, that "a good horse is known from the first." If purchased after he has appeared in public, at two years old, of fashionable blood, and having run in front, he is not to be purchased much under a thousand guineas, which is a large sum to realize, when added to concomitant expenses. Nothing but the immense amount of stakes for young racing-stock can justify such a speculation. For example, in 1824, a filly of the Duke of Grafton's won four thousand four hundred and fifty guineas, public money, by only starting twice.

One of the principal drawbacks from the prospects of success in a racing establishment, is a complaint called the Distemper, a sort of catarrhal fever, the cause of which is generally attributed to atmospheric influence, and also to any other which may produce what is termed a cold. Unlike common catarrhs, however, the distemper will run through a whole stud of horses; and if it do not, as it frequently does, end in an affection of the lungs, it leaves a lassitude behind it, which requires some time to remove. As a hot sun, with cold winds in spring, and the humid air of the autumn, are the chief predisposing causes of this complaint, an even temperature in the stable, and warm clothing when out of it, together with avoiding exposure to extremes of heat and cold, are the best safeguards against its attacks. It may be compared to a frost over the blossoms, which in one night blasts all former hopes of a crop.

A most interesting event to a breeder of thorough-bred stock is the trial of their racing powers, which at once decides the question of their being worth the expense of training to run, or not. There is a great deal of judgment necessary in the act of trying even old horses, but still more is required to form a just estimate of a young one, from the difficulty of knowing when he is quite up to the mark, as well as of keeping him there till it may be convenient to try him;—and it is not always so, owing to bad weather, the trial of young things being generally very early in the year. This subject, however, coming more properly under the head of Training the Race-horse, will be treated of at a future time.

But we have not yet spoken of the form of the race-horse, which we will now describe; and as nothing can be considered characteristic of a species, but what is perfect of its sort, we will so far endeavour to make the pen perform the task of the pencil, as to portray his cardinal points, as nearly perfect as such means will admit of. Nature herself, perhaps, rarely exhibits perfect models in the animal world, leaving the completion of her skill to human sagacity; neither is undeviating symmetry absolutely necessary in a race-horse. In every composite, however, beauty consists in the apt connexion of its parts with each other; and just proportions in the limbs and moving levers, coupled

Race-
Horse.

with that elegance of form *in which there is no unnecessary weight to oppress the muscles*, so peculiar to the highly bred race-horse, is all that need be insisted upon in a racer. It is nevertheless hard to say what horse will make a racer; and also what will not, until put to the test; for, how many horses have appeared, which the eye of the sportsman would not wish to study, and yet have proved themselves very capital runners? This excellence, however, in those "cross-made horses," as they are termed, not misshapen ones, arises, as has been before observed, from their possessing parts conducive to speed and action, not, perhaps, very strikingly displayed, but, by means of greater length and depth, and a peculiar manner of setting on of the acting parts, enabling them to excel others, much handsomer to the eye, but wanting in either proper declivity, length, or, what is still more probable, in circular extent of those parts. Thus, as the wise man, according to the Stoics, alone is beautiful, so is a race-horse to be admired solely for those points which make him a good race-horse.

Although symmetry and proportion form a perfect figure, and they become deformities when any of the component parts exceed or fall short of their due proportions, yet it is not always necessary to measure by the standard of perfection. Suffice it, then, to state the generally approved points of the English race-horse.

We commence with the head, not merely because it has always been considered as the most honourable member in the human frame, but as it is one of the leading characteristics of the thorough-bred horse. His broad, angular forehead, gives him that beautiful expression of countenance which no other breed possesses; and the tapering of the face from the forehead to the muzzle, forms a striking contrast with the large face of the cart-horse, and the forehead scarcely wider than the face. The race-horse should have a black, lively, and rather prominent eye, which denotes a sound constitution; and as horses do not breathe through the mouth, but only through the nose, the nostrils should be rather expanded and flexible, that they may accommodate themselves to quickened respiration, as the speed of the animal increases. But they should not be over large. "*Naribus non angustis*," says Varro, and he is right. Beauty in the head of the race-horse, however, is only a secondary consideration to the manner in which it should form a junction with the neck, as on that, in a great measure, depends the goodness of his wind in a race. His jaws should not only be thin, and not approach too near together at the throat, but they should not extend too high towards the onset, or they will impede his freedom of breathing. The neck of all horses should be muscular; but what is called a loose neck in a race-horse, is not so objectionable as in a hunter, and is considered as indicative of speed. But as the head of a horse may be called the helm which guides his course, changes, and directs his motions, it is not only desirable that, as he cannot move his head, but with the muscles of his neck, those muscles should be pliant, but that he should also have what is termed a good mouth. It is asserted that the weight of the head and neck, the effect increasing with their distance from the trunk, adds to the speed of the horse, by throwing his weight forward; but this is no argument for *additional* weight or length in those parts, which ought to be duly proportioned to the trunk. The neck of the race-horse should be in no extreme, but rather long than otherwise, and not too much arched.

As horses are said to go with their shoulders, these may be considered as highly important points. They vary in form more than any other part of the horse's frame. Those of Flying Childers rose very high and fine towards the withers; whereas, a firkin of butter is said to have rested, unsupported, on the withers of Eclipse, when in covering condition. Upright shoulders, however, being an impediment to speed, obliquity of the scapula is absolutely neces-

sary, but we do not insist upon their running fine at the withers. We consider the shoulders of Eclipse to have resembled those of the greyhound, wide at the upper part, and nearly on a line with the back. Large, or even what are called coarse shoulders, contribute greatly to strength, and are no impediment to speed, if there is proper declivity of the scapula, or shoulder-bone. The withers, when high, or thin, should enlarge gradually downwards, and there should be four or five inches between the fore-thighs, but less between the feet.

The true position of the limbs is a most material point in the race-horse, as it causes him to stand over more ground than one which is otherwise formed, although possessing a more extended frame. One of these essential points is, the setting on of, and length in, the fore-arm, or part from shoulder to knee in the fore-leg; and, another, is the declension of the haunch to the hock in the hind leg, which is termed "well let down in the thigh." It is from having those points in excess, that enables *the horse* to describe a far greater circle, and cover more ground at one stroke, than any other animal nearly double her size. In fact, the arm should be set on at the extreme point of the shoulder, which insures this act of extension, and also adds to the declivity of the shoulder. The knee should be broad and flat, and if appearing somewhat prominent, the better. All the Herod legs had prominent knees (and no legs stood work better than they did), concussion in galloping being diminished in legs so formed. The cannon, or shank, from knee to fetlock, should be of moderate length in the race-horse (longer than in the hunter), and, above all, the leg should appear flat, not round, with sinews and bones distinct; and the former appearing to be very firmly braced. The pastern of the race-horse should be long, lax, and rather small than otherwise; length and laxness serving as springs, and smallness contributing to agility, and consequently to perseverance or bottom. Some comparison will hold good between this point in a horse, and the "small of the leg," as it is called, of a man, in contradistinction to the calf. Under the pressure of fatigue, no man complains of the "*small* of his leg" giving him uneasiness, but his calves often give him notice that he has done too much. The hoof of the race-horse should be of moderate size in proportion with the leg above.

We have already alluded to the bone of the thorough-bred horse, which much exceeds that of any other variety of this animal, in its compactness and solidity; which qualities, as the span in the gallop must give a shock in proportion to its length, are admirably adapted to the race-horse. We cannot say of him, what Job said of the behemoth, that "his bones are like bars of iron;" yet, as in proportion to the muscular power of the animal, is the dense quality of the bone, that of the race-horse need not, nor should not, be large. Experience teaches us, that bones very rarely break; fractures, when they do occur in racing, being almost invariably in the joints; and rather small bone in the leg of a race-horse, supported by broad and well-braced sinews and tendons, placed distinct from the bone, and forming what is called a flat and wiry leg, is most desirable, and found to be indicative not only of speed and endurance, but likewise of soundness in severe work. It is only those who are ignorant of the anatomical structure of animals, that fix the basis of strength in the bony substances alone, not considering the muscular appendages, which constitute the main-spring of strength and action.

As the strongest bodies owe their vigour to the milk they receive in their infancy, our recommendation to keep brood mares well will not be considered as unsuitable; but the connexion between milk and bone is also deserving of a remark. When animal bones are divested of their oil and jelly, the earth which remains is chiefly lime, united with phosphoric acid. It is worthy of notice, that phosphate of

Race-
Horse.

Race-
Horse.

lime is found in abundance in milk. This seems to indicate, that Nature thought fit to place, in the first nourishment of animals, a quantity of osseous matter, with a view to the necessary celerity of the formation and growth of the bones in the earliest stage of their lives. This is one of the numerous instances of the beneficence of the Creator, exemplified by the science of chemistry, and shews the advantages to be expected from a good flow of milk in a mare that is well fed; and it is a remarkable fact, that the nearer the female approaches to the period of parturition, the more is the milk charged with this calcareous phosphate. Nor is it until the digestive organs of the foot are sufficiently strengthened, to answer the purposes and work of animalization, that this earthly salt disappears.

But to proceed with the form of a race-horse. The race-horse should have length, but the length should be in his shoulders and in the *quarters*; that is, the part posterior to the hips, and not in his back. To give him that elegance of form for which he is so conspicuous, there should be no acute angle or any straight line. His shoulders should go into his neck at the points, *unperceived*, and his back should sink a little behind the withers, which gives his rider a good seat, and does not in the least diminish his strength. On the contrary, horses with very straight backs are generally deficient in their fore-quarters, as well as in their action; and we have known some very good racers even what is termed hollow-backed. There should be a little rise in the loins, just behind the saddle; but the race-horse should not be too closely ribbed up. The ribs should stand out from the spine, producing what is called a round barrel, together with depth of carcass, a formation which not only gives strength of body and constitution, but, by admitting the intestines to be comfortably lodged within the ribs, imparts freedom of breathing, activity and beauty to the whole frame of the horse, other parts being proportional. These useful points, however, must not be carried to an extreme, or the horse may be what is termed "too heavy for his legs;" and we know that light-bodied horses save their legs much in their gallops, which accounts for mares and geldings standing the severity of training to a later period of life than stallions, by reason of the former requiring less work, from not generally carrying so much flesh as the latter.

There is no part, excepting the head, so truly characteristic of high breeding in the horse, as his haunch. If a little of the elegance of the parts, however, is diminished by the width of the hips, it will be recompensed by increased strength in the animal, as is the case with broad-shouldered men; and when accompanied with good loins, these protuberances of the ilium can scarcely be too great for the purposes of power and action. We next come to the thigh, the form and substance of which is most material to the race-horse; for although horses are said to go with their shoulders, the power to give the impetus in progressive motion comes from behind. With all animals endowed with, and requiring extreme rapidity of, motion, the thigh is furnished with extraordinary powers and length: the hare, for example, whose thighs are let down to a great extent for their size, and the lower part of the hinder leg placed under them, as that of the racer should be, from a proper curve of the hock. The speed of the ostrich arises from the power of the muscles from the pelvis to the foot; and the thigh of the fighting cock is a point much considered by breeders. It is not necessary that a race-horse's thigh should be very large, but it should exhibit well developed muscle. Descending lower in the limb, we arrive at the hock, a very complicated joint, but the form of which is most important in the race-horse. It should be large and lean, and the point of it projecting behind the body, which greatly increases the power of the lever in action, as will presently be most satisfactorily shewn.

Size.

Race-
Horse.

The point of perfection in most things lies at a middle distance between two extremes, and such is the case here. The medium height, about fifteen hands two inches, four inches to a hand, is the best for a race-horse. As the long beam breaks by its own weight, so large animals have rarely strength in proportion to their size. In fact, if there were any land animals larger than those we know, they would hardly be able to move at all. On the English Turf, however, the very large horses that have appeared at various periods of its existence, have, with a very few exceptions, not been found so good under high weights, as those of a medium height; and several instances are on record (*Meteora*, *Whalebone*, and others, for example) of the best horse of his year being very nearly the lowest.

The following are amongst the principal and essential points of a race-horse, pointed out by Mr Darvill in the second volume of his "Treatise on the Care, Treatment, and Training of the English Race-horse," London, 1834.

"His head should be small and lean; his ears small and picked; his eyes brilliantly large; his forehead broad and flat. . . . His throat should be clean, and fine from the butt of the ear down to its centre, with a good wide space between the jaw-bones, which latter should be thin. . . . The neck should be moderate in length, I prefer its being wide; I mean its width should be formed by the substance of muscles which pass along each side of the top part of it; from the withers to the head it may gradually rise a little in its centre, but by no means to any extreme, as I have a great aversion to a high-crested race-horse. Indeed, I would prefer that his neck should be as I have described his face, rather of the ewe or deer-like shape, than that it should be loaded on top, which I will by-and-by explain. As to the lower part of the neck, I have no very particular remarks to make, further than the trachea or windpipe should be spacious and loosely attached to the neck on its way to the lungs.

"The withers may be moderately high, and, if the reader like, they may also be moderately thin; but, with respect to this latter point, I am not so very particular, provided the shoulders lay well back. From the withers the back commences. I confess, that appearance may be in favour of a horse that has his back a little low or hollow. As a saddle-horse this may be all very well, but for a race-horse, to have strength and liberty of stride, his back should be straight and moderately long, with the shoulders and loins running well in at each end. The loins should have great breadth and muscular substance, so much so as for them to have the appearance of being raised as it were on their surface; and those muscles posterior to the loins should fill up level the top part of the *quarters* to the setting on of the tail, which latter should be set on pretty high up."

After describing the fundament, which, if small, close, and tight, and rather projecting than otherwise, Mr Darvill considers as a good constitutional point, he thus proceeds:—"I now come to speak of the body, or what is by some people commonly called the 'middle piece' of the horse, and which is divided, internally, into two cavities by a muscular substance called the 'diaphragm.' The anterior cavity, the chest, contains the lungs, the heart, &c. The posterior one, the abdomen, contains the stomach, intestines, liver, kidneys, &c. Now, with respect to the external form of the body, which contains and protects all those numerous organs so important to life, I shall first make my observations on the chest. To use a common phrase, and somewhat an expressive one, a horse in this part should be what is called 'well over the heart,' that is, he should be deep in his girth, round or well arched in his ribs. I mean by this, that a rider on the back of a race-horse (as they are generally better: about the chest than

Race-
Horse.

horses in common use), should feel he has some breadth or substance between his legs; and there should be a good swell of muscle before his knees, or the centre of the flaps of the saddle. The chest, thus spaciouly formed, gives room for respiration, so that, in training, the horse's wind can be brought to the greatest perfection, which enables him to run on in long lengths. The next part to be treated of is the abdomen or belly, or what is usually called the carcass. It may perhaps appear a little strange, but I have a great aversion to what is commonly called a good carcassed horse, nor am I particularly partial to a large sheathed one. I like both these parts to be in the medium, as I do also that of his being well ribbed up. It is true that a horse being well ribbed up denotes strength, and a short close made race-horse is, in running, handy at his turns, and, as I have already noticed, he is generally a pretty good one under high weights over a small round cock-pit course; but this description of course and sort of running is not now so much practised as formerly, or rather it is a sort of racing that does not exactly suit long-striding horses, as most of those are that run in Newmarket. Another thing is, that horses with large carcasses are mostly great gluttons; they put up flesh very rapidly, and are very difficult and troublesome to train, in consequence of their constitutions being too strong, or proportionably too much for their feet and legs. Such horses not only seldom remain long in training, but they cannot remain long in condition without their becoming stale in themselves, as also on their legs, and those are my reasons for objecting to very large carcassed horses; yet I do not wish horses to be what is termed 'tucked up' or waspish in their carcasses. I like a horse's carcass to be in the medium; that is, it should be straight and handsome from behind the girths of his saddle; and what will make up sufficiently well, and give him sufficient strength of constitution, is the well formation of the parts already noticed, as the chest, the loins, and the fundament.

"To return to the fore-extremities. The shoulders commence from a little below the withers; they should lie most particularly well back, should be deep, broad, and muscularly strong; yet those muscular parts should appear to the eye as being moderately so, that is, not unproportionally loaded: These muscles should be distinctly seen, there should be no appearance of fat, or, as it is technically termed, 'adipose membrane.' The shoulders cannot well be too oblique in their descent to the front of the chest; here, on each side, a joint is formed by the lower part of the scapula or shoulder-blade being united with the upper part of the humerus or arm-bone. Those joints, thus formed, are usually called the points of the shoulders, which points should appear straight or level. There should be no coarse, projecting, or heavy, appearance about the points of the shoulders of such horses as are intended to race; nor indeed does this often occur, unless where it happens that the chest or counter of the horse is unproportionally wide. In taking a front view of the chest, it should appear moderate as to breadth; and if its prominency is at all to the extreme, it should be in consequence of the fulness or substance of those muscles covering the breast, which muscles should be lengthy, and their divisions distinctly to be observed. The fore-arm should be broad and long, and most particularly well furnished with muscles on its top parts, inside as well as out; I mean by this, that the muscles on the top and inside of the arm should here be so large as to leave but a moderate space between the fore-legs, immediately under the chest, and which muscles should appear, as those in front of the chest, distinctly divided. The posterior part of the top of the arm is called the 'elbow,' this should appear (the horse in condition) somewhat on a level with the body; if it at all deviates from this appearance, I would prefer its standing in, to that of its standing

unproportionally out. The knee-joint should be large, broad, and flat in front; generally speaking, the larger and broader all joints are in reason the better and stronger they are; and the longer, coarser, and rougher, their projecting points or *processes* are, the greater and more secure will be the lever for the muscles or tendons to act upon, provided such projecting parts or joints (as the hocks and pasterns) do not amount to disease, as that of producing spavins and ring bones. The legs from the knee to the fetlock, cannot well be too short, neither can they well be too broad or too flat, nor their flexor tendon scarcely be too large or appearing too distinctly divided, as it were, from the leg. The fetlock-joint should also be large, and the pastern proportionally strong, but its length and obliquity should be in the medium. The wall or crust of the feet should also be moderately oblique, with the heels open, and frogs sound; this, indeed, is generally the state of racing-colts on first bearing their paddocks, if their feet have been paid proper attention to during the time they may have remained there. Yet, the feet of such of them as have been some time in work will occasionally get out of order; they grow upright and strong; the horn gets hard and brittle, and the heels more or less contracted, almost all of which defects are too often occasioned from the want of proper attention being paid to them at the time of shoeing, and of proper applications being applied to them in the stables. With regard to the structure of such horses feet, and the diseases of them, as also the method of shoeing and plating them, a description will be found in the different chapters on those subjects in the first volume. Previous to concluding my remarks on the fore extremities, it may not be amiss to observe to the reader, that, supposing him to stand opposite to those parts of the horse, if the animal is formed in them, as I have already described the centre of the top part of the fore-arm, to be well placed, ought to be nearly or quite in a parallel line with the top or fore-part of the horse's withers; and again, from the top part of the fore-arm down to the foot, for the horse to stand firm and well, and have the power of using his fore-legs well, he should stand perfectly straight on them; I mean by this, they are not to appear too much under him, or too much out or away from him. Suppose again, for example, a man standing in front of the horse, and here taking a view of the foot, the centre part of the wall or crust should be in or on a parallel line with that lower part or joint of the shoulder, commonly termed its point. A horse's feet, thus placed, will neither be too much out or too much in; but should his feet deviate from what I have here observed, by amounting to a fault, in turning too much out or too much in, I should prefer their being a little out, to that of the other extreme of turning in, and being what is called 'pigeon-toed.'

"I shall now proceed to describe the hind-quarters or posterior extremities. As may be supposed, the well formation of those parts is of the utmost importance to a race-horse in his running; it is, therefore, necessary that they should be, in breadth, substance, and length, of very superior dimensions. The hips should have a great breadth between them; and if they are a little coarse or projecting so much the better, provided such coarse projections are not in the extreme, or appear vulgar or unsightly. From the centre and posterior part of the loins to the top of the tail is called the 'croup,' and should be of great length; and, if it deviates from that of a straight line, it may be somewhat arched in the centre; the croup being thus formed gives great breadth to the top of the quarters, the length of which, from the croup down to the hock, cannot scarcely be of too great an extent, in order that there may be sufficient room here for the attachment of those broad, powerful, lengthy, and distinctly divided muscles on the outside of the quarters and thighs; and there should also be a similar portion of such muscles on the inside of the

Race-
Horse.

Race-Horse.

quarters and thighs; so that a man, who is a good judge, taking a posterior view, may observe how the horse is made. In this position he should be, as it were, struck by the appearance of the great breadth and length of the back part of the quarters, and as he moves his head to the right or left, the centre and outside of the quarters and thighs, and the swell of the muscles, should appear beyond a level with the hips. The upper part of the muscles on the inside of the quarters should appear quite close to each other, so that no vacant space should be visible between them, as that of an appearance of the horse being (if I may thus express myself) chucked up in the fork. Such should be the lengthy and muscular quarters of a well made race-horse.

"The stifle-joint should be in a direct line under the hip, and the length from this joint to that of the hock cannot reasonably be too long, and the farther out of the angular or oblique position of the thigh-bone the better, so as to admit of the back part or projecting point of the hock appearing some distance out beyond the top of the hind quarters; those parts being thus formed, admit of a very considerable lever for the main tendon here to act upon the tendon Achilles, which, like the flexor one of the leg, can scarcely be too large or too distinctly seen in its commencement, from the lower part of the quarter to its insertion into the posterior or projecting point of the hock, the os calcis. The hock should be broad and wide, with a clean lean appearance, and those soft parts which are occasionally the seat of through-pins and bog spavins, in a sound well formed hock, should appear more as cavities than as having the above-mentioned projections, and which are sometimes the cause of lameness. The hind-leg, like the fore one, should be short, broad, flat, and straight; the trifling angle formed by the hock should, together with the moderate obliquity of the pastern, bring the extremity of the toe nearly under the stifle-joint."

Action of the Race-Horse.

As amongst the Egyptians, the lion was the hieroglyphic of strength, so was the horse of agility; and truly nothing displays it more elegantly than he does, when gamboling in a state of liberty. In the race-horse, action, as in eloquence, is the next thing to substance; and *virtus in actione*, should be the horse-breeder's motto. But the action of the race-horse is of a nature peculiar to his calling. He must not only possess great stride in his gallop, the result of great proportion in his limbs and moving levers, but also a quickness in repeating that stride, or he would lose in time what he gains in space. It is then when stride and quickness are united, that the fleet racer is produced; and in his race with Diamond, Hambletonian is asserted to have covered twenty-one feet at a stroke at the finish of it; and Eclipse is generally believed to have covered eighty-three and a half feet of ground in a second, when going at the top of his speed, which, by a calculation by Monsieur Saintbel, amounted to about twenty-five feet of ground covered at a stroke.

The action most approved of in a racer, as describing the greatest extent, with the least fatigue to the animal, is what is termed on the Turf "round action;" that is, when, on a side view being taken of a horse in his gallop, his fore legs appear to form a wheel or circle. Different ground, however, requires different action; and the large, long striding horse may be beaten on a hilly, or turning course, by one of a smaller size, but with a shorter stride, which prevents the Newmarket courses being a certain criterion of a good runner at Epsom, which is very trying ground. The state

Race-Horse.

of the ground, likewise, whether wet or dry, soft or hard tells so much in a race, as often to give it to a horse very little thought of at starting, as was the case with Tarrare, winner of the St Leger, at Doncaster, in 1826. The celebrated Euphrates, the winner of so many gold cups, and who ran till he was in his teens, was nearly a stone below his usual form, after even a hard shower of rain. This variation of fleetness corroborates our assertion, that the virtue of what is termed blood is mechanical, or, what is the same thing, that the excellence of all horses is mechanical, and that the smallest deviation from a true formation of the acting parts operates so powerfully as to render them, under certain exertions, nearly valueless.

Wind.

It is true, "speed wins the race;" but to make it available to the race-horse, it must be accompanied by endurance, or "bottom." A great promoter of this is clear wind, or freedom of respiration, the want of which makes the war-horse rebel in the manège, the hunter run into his fences, the draught-horse fall, as if he were shot, and the racer either stop, or bolt out of the course. In fact, when the organs of respiration are fatigued, all animals are nearly powerless. The cause of good wind may be distinguishable to the eye, and arises chiefly from depth in the fore-quarters, which implies a capacious thorax or chest. However wide a horse may be in his foreparts, he will not be good-winded unless he is, at the same time, deep. But still wind in the race-horse depends on something more, on the nature of his constituent and component parts, which, if in proper proportion, impart to him strength and agility, giving him that easy action which will not readily fatigue these organs of respiration; and so enable him to run on, when others, less gifted by nature than himself, are forced to slacken pace. The good effect of clear wind in a race-horse is in fact twofold; first, It gives him signal advantage in a race; and, secondly, Horses thus organized require less work to make them fit to start.

The following passage on this point is worthy of remark: "When the animal powerfully exerts himself, a more ample supply of pure blood is required to sustain the energies of life, and the action of the muscles forces the blood more rapidly through the veins; hence the quick and deep breathing of a horse at speed; hence the necessity of a capacious chest, in order to yield an adequate supply, and the connexion of this capacity of the chest with the speed and the endurance of the horse; hence the wonderful relief which the mere loosening of the girths affords to a horse blown and distressed, enabling the chest to expand, and to contract to a greater extent, in order to yield more purified blood; and hence the relief afforded by even a short period of rest, during which this expenditure is not required, and the almost exhausted energies of these organs have time to recover. Hence, likewise, appears the necessity of an ample chest for the accumulation of much flesh and fat; for, if a considerable portion of the blood be employed in the growth of the animal, and it be thus rapidly changed, there must be provision for its rapid purification; and that can only be effected by the increased bulk of the lungs, and the corresponding largeness of the chest to contain them."¹

Certain thorough-bred horses would deceive an inexperienced observer as to the real state of their organs of respiration, by an appearance of difficulty of breathing, which, in reality, they do not possess. The term for this apparent defect is, in one instance, hard breathing, or high-blowing, and in another "cracking the nostrils." Of the first description was the celebrated Eclipse, whose breathing in

¹ *Farmers' Series*, "The Horse," Part VI. p. 182.

Race-Horse.

his gallop could be heard at a considerable distance; and of the latter (still more common) may be reckoned many of the best racers of past and present days. Indeed, a race-horse cracking his nostrils in his exercise, and snorting well afterwards, are considered indicative of good-windedness. On the other hand, when a race-horse becomes a roarer, which is a common effect of a severe attack of the epizootie, called the Distemper, he is rarely able to struggle in a race, although there have been several instances of winners under such very unfavourable circumstances.

Temper is a property of much importance to the race-horse, subject as he is to its influence under more trying circumstances than most other descriptions of horses. In the first place, his fine and nearly hairless skin, softened and cleansed as it is by frequent copious perspiration, is so highly sensible to the friction of the wisp and brush, as to induce him to try to rid himself of his tormentor, by attacking the person who is dressing him, and thus becomes vicious in the stable. It will also be recollected that he is at this time, perhaps, in the very highest state of condition and good keep of which his nature is susceptible. On the race-course, again, he has often to encounter the (to him) unnatural sound of music, and many strange objects; perhaps two or three false starts before he gets into a race; and too often, when doing his best in a race, very severe punishment both by whip and spur. It is in his race, however, and chiefly in the last struggle for it, that the temper of the race-horse is most put to the test; and, if really bad, he either runs out of the course, to the great danger of his rider, and to the inevitable loss of his owner and those who have betted on his winning, or he "shuts himself up," as the term is, and will not head his horses, although in his power to do so. It is evident, then, that breeders should not send mares to stallions of known bad temper, as nearly all those propensities are found to be hereditary; and we could name one or two of the best horses of the present day, who are generally rejected as stallions to breed racers from, by reason of these propensities.

It would be absurd to draw a comparison between the English race-horse in training, and the horse of the Desert, "educated," as Mr Gibbon eloquently says of him, "in the tents, among the children of the Arabs, with a tender familiarity, which trains him in the habits of gentleness and attachment." Nevertheless, we are inclined to believe that the tempers of many naturally quiet horses are made uncertain, and oftentimes decidedly vicious, by want of proper judgment, as well as good temper, in those also who have the management of them. Brutes, like men, demand a peculiar mode of treatment, when we require them to do their utmost for us; and it is certain that this principle holds good in regard to both, namely, *that, in general, kindness gains its point, cruelty provokes resistance, and a proper degree of severity produces obedience.* The panther in the fable knew who fed her with bread, and who pelted her with stones; and we may be assured, that so noble and high-spirited an animal as the horse feels with acuteness sensations of pleasure and pain.

We often hear it asserted that the British thorough-bred horse has degenerated within the last few years, and is no longer the stout and long-enduring animal that he was in the bygone century, particularly during the last twenty years of it. We are inclined to believe that there is some truth in this. We do not think we have such good four-mile horses, as they are termed, as formerly, which we consider easily accounted for. They are not wanted, very few four-mile races being now run, even at Newmarket or in the country, and, therefore, a different kind of race-horse is sought for. It may, however, be true, that the inducement to train colts and fillies, at a very early period of their lives, for these short races, has had an injurious effect on their stamina, and, consequently, on the stock bred from them.

Race-Horse.

Formerly a horse was wanted for a lifetime, now he is cut up in his youth to answer the purposes of perhaps but one day;—a system, we admit, quite at variance with the original object of horse-racing, which was intended to benefit the community, by being the means of producing, as well as displaying, the constitutional strength of the horse in its very highest perfection. Another cause may have operated in rendering thorough-bred horses less powerful than they were, or less capable of enduring severe fatigue. During the period of high weights and long courses, horses and mares were kept on in training until after they had arrived at the age of maturity, neither did they begin to work so soon; whereas now, no sooner have they won, or run well for some of our great three year-old stakes, than they are put into the stud to produce racing stock, which is perhaps to be used much in the same manner as they themselves have been used, or, we should have rather said, abused.

But, admitting this alleged falling off in the powers and performances of the British thorough-bred horse, it may be the result of causes unconnected with those already noticed. Although there may be no era of greater intellectual brightness than another in the history of any animal but man, yet, as is signified by Plato in the eighth book of his Republic, there have always been periods of fertility and sterility of men, animals, and plants; and that, in fertile periods, mankind, as well as animals, will not only be both more numerous, but superior in bodily endowments, to those of a barren period. This theory is supported by the relations of ancient historians, in the accounts they give of animals which no where exist at present, and in the properties they ascribe to some of those which now do exist.

But to return to the alleged alteration for the worse in the British race-horse. We admit the fact, that he is not so good at high weight over the Beacon at Newmarket, or any other four-mile course, as his predecessors were, whose descent was closer than his is to the blood of Herod and Eclipse, and the descendants of that cross, said to be the stoutest of any. Nevertheless he is, in his present form, more generally adapted to the purposes to which the horse is applied. He has a shorter, but more active, stroke in his gallop than his predecessors had, which is more available to him in the short races of the present time than the deep rate of the four-milers of old times; and as he is now required to start quickly, and to be on his legs, as the term is, in a few hundred yards, he is altogether a more lively active animal than formerly; and, as such, a useful animal for more ends than one. In former days, not one trained thorough-bred horse in fifty made a hunter. Indeed few sportsmen had the courage to try the experiment of making him one. He went more upon his shoulders, as well as with a straighter knee, than the modern race-horse does, and required much greater exertion in the rider to pull him together in his gallop. All those sportsmen, however, who remember such horses as the late Earl Grosvenor's, John Bull, and Alexander, must admit, that, in form and substance, they were equal to carrying the heaviest weight across a country, and the last mentioned horse was the sire of several very powerful, at the same time very brilliant hunters. But as it is action after all that carries weight, the thorough-bred horses of this day are not deficient in that respect, unless undersized; and there are more thorough-bred hunters at this period, and have been more for the last thirty years, than were ever known before. This improvement in action also qualifies the full-bred horse for the road, whereas formerly not one in a hundred was fit to ride off turf. Indeed daisy-cutters and thorough-bred horses were nearly synonymous terms; but at present a young lady on a bit of blood is an every day sight; and a young gentleman on any thing else in the parks, or on his road to hounds, is become rather a rare one. This is a very saving

Race-Horse.

clause to breeders of race-horses, as a market is now generally found for such as are undersized, or tried to be deficient in speed for racing; whereas in former days, a bad race-horse was, like Rosinante, neither saleable nor pawnable.

Speed of the Race-Horse.

All animals in a state of domestication exhibit powers far beyond those that are natural to them in their wild state, and writers on the horse have advanced to the utmost verge of possibility, in recording the maximum speed of the English race-horse. Most of the instances stated by them, such as Flying Childers having run a mile in a minute, are unsupported by authority, and therefore not worthy of regard. That the horse, however, has ever been considered the swiftest beast of the forest, may be gathered from the frequent allusions to his fleetness by inspired as well as by heathen writers. Thus, the chariot-horses of Oenomaus, King of Elis, were said to be begotten by the winds, emblematical of their prodigious swiftness; and Homer represents the steeds of Achilles to be the produce of Zephyrus (the west wind, said to be the swiftest of any), and Podarge, whose name signifies speed. Nor is Virgil far behind the rest in his encomium on the fleetness of his colt, which he makes to challenge the very whirlwind itself. As it is speed, however, that wins the race, it is most essential to the race-horse, provided it be accompanied by stoutness; and unless we wish to fly through the air like Pacolet on his wooden horse, we may be contented with the speed of the present English race-horse. Perhaps the following is a fair specimen, and, as it is of so late a date, the same uncertainty does not attach to it that hangs over the unsupported traditions of our earlier racing days. In 1832, Theodore, the property of the Honourable Edward Petre, and winner of the Doncaster St Leger stakes, ran the distance, being one mile six furlongs and one hundred and thirty-two yards, in three minutes and twenty-three seconds, carrying 8 stone 6 lb. He was trained and tamed by the late Mr Croft, who also trained the second and third horses in the same race.

Expenses of a Breeding Racing-Stud.

Some persons must be breeders of race-horses, but whether to profit or loss, depends on various circumstances. Amongst them may be reckoned the following:—Judgment in selecting the parent stock or blood; conveniences for keeping the produce well and warm, and on land suitable to breeding; and plenty of money at command, to enable a breeder to purchase mares of the very best racing families, and to put them to the best of stallions. When this is the case, we think breeding (we mean quite distinct from risk in racing) would seldom fail to pay, if the foals were sold off at weaning time, or even at a year old. A few years back, eight of the Earl of Durham's foals realized L. 200 a-piece; and, still later, several of Mr Nowell's (of Underley Hall, Westmoreland) yearlings fetched the enormous sum of L. 500. No doubt, in all studs, great loss is sustained by a certain proportion of the young stock which promise to be small and not worth training; but here breeders are often deceived. For example, the late Lord Grosvenor sent Meteora, the best mare in England of her day, to Chester Fair, when two years old, to be sold for L. 16, because she was considered as too small; and he also suffered Violante, the best four-mile racer of her day, to be sold, *untried*, for L. 50, but fortunately purchased her again. The great prices, however, occasionally paid to breeders for some

horses (4000 guineas, for example, to the Earl of Jersey for Mameluke, and 3000 guineas a-piece have lately been given for other three year-old colts) make up for the loss inseparable from such as, by misshape, diminutive size, and casualties, are culled out, and sold for what they will fetch, which seldom amounts to much.

Race-Horse.

Value of Stakes and Prizes.

Agamemnon is made to say, that that man would be rich who had treasures equal to the value of the prizes the horses had won, which he offers to Achilles. We are inclined to think, that if this king of Argos could come amongst us now, he would find prizes more valuable than any contended for in his time; and that sterling cash, and not "the bubble honour," is the main object of the British sportsman on the Turf. But here is the inducement to the great expenses of a racing breeding-stud: It is possible that a three-year-old *colt* might win, at three starts, the enormous sum of 8350 guineas; and a three-year-old *filly* might win the still greater amount of L. 11,100.¹

Colour of the Thorough-bred Horse.

The beauty of forms observable in the animal system is subordinate to their general utility, and they please us in proportion to their aptitude to unite these two objects. We admire the elegant make of a swan, but the pleasure is doubled when we behold the ease and dignity of its motion. The colours, however, which Nature has bestowed with such profusion upon the surface of some of these animals, birds in particular, exhibit beauties independent of aptitude, and could only have been intended for their adornment. The prevailing colour of the thorough-bred horse is peculiarly elegant and chaste, being a bright bay, with black mane and tail, and black legs to correspond, although occasionally relieved with a small white star on the forehead, or a white heel of the leg. It is remarkable, that what may be termed vulgar colours, such as light sorrel, or dun, or brown with mealy muzzle, are very seldom met with in the thorough-bred horse; and we know but one instance of the pie-bald, and very few roans.² Black is not common, nor approved of, although several of our best racers, almost all the Trumpator blood, have been of that colour. The real chestnut prevails a good deal, and is quite equal to the bay in the richness and brightness of its hues. Such was the colour of Eclipse, and, as is the case with game-fowls, in the breeding of which there are instances of a reversion to the original colour, after fifteen descents, it is not uncommon for thorough-bred stock to be chestnuts, although got by a bay stallion out of a bay mare, or from sire and dam of any other colour, provided the blood runs back to his, Eclipse's, source. Indeed, a small dark spot which that celebrated horse had on his quarter, has been frequently found in his descendants in the fifth or sixth generation.

It is an old and trite saying, that "a good horse cannot be of a bad colour;" nevertheless, colours of horses are, to a certain extent, indices of their physical powers. Such has proved to be the case with men; and it was found in the ill-fated Russian campaign, that men of dark complexions and black hair bore the severity of the climate better than men of an opposite appearance to them. It is, however, rather a remarkable fact, that by far the greater number of eminent English prize-fighters have been men of light, not dark, complexion. The ancients reckoned thirteen colours of horses, giving the preference to bay (badices).

¹ Vide *Racing Calendar*, 1834, for amount of the twentieth Riddlesworth stakes, at Newmarket; the Derby and Oaks, at Epsom; and the St Leger stakes, at Doncaster.

² See "The Cocker," by W. Sketchley, Gent. London, 1814.

Race-
Horse.

A second-rate description of racer has lately been very prevalent in England, Newmarket excepted, known by the term "cock-tail," or *half-bred* horse, as he is called, but improperly so termed, because the stain in him is generally very slight indeed, and too often difficult to be traced. Many objections are raised by sportsmen, who are thorough racing men, and who wish well to the Turf, against the cock-tail racer, and for very good reasons. In the first place, if really half-bred, he resembles the royal stamp upon base metal, for no half-bred horse is deserving the name of racer, nor will he stand the necessary preparation. Secondly, what are called half-bred stakes, some of which are very good, have been the cause of a great many frauds being committed, by bringing horses to run for them under false pedigrees, which will ever be the case, from the great difficulty of proving a horse to be thorough-bred, whose dam may have been purchased by accident, or in some clandestine way, and still perhaps of pure racing blood. Again, as there is no scale by which the degree of impure blood, which qualifies a horse for those stakes, can be measured, the breeder of the cock-tail, of course, avails himself of the parent stock in which the slightest possible stain can be shewn, which indeed has been attempted to be shewn in some of the best race-horses of later times. In this case, an animal is produced against which no half-bred horse, in the proper acceptation of the term, has a chance, and he sweeps the country of all the good stakes; and some such horses, (Habberley, for example) have proved themselves superior to many of the thorough-bred racers of their year. But the breeding of horses for these stakes is any thing but beneficial to the country, the great object of racing. It encourages a spurious race of animals, often possessing the faults of the blood horse without the strength and activity of the hunter, and it was for the latter description of horse that this stake was first intended. *Bona fide* hunters' stakes would be advantageous, if open to all horses bringing certificates of their having been regularly hunted throughout a season, but not merely ridden by a boy to see a fox found; and giving no allowance to the horse called "half-bred." Let the best hunter win, which would encourage the breeding of strong thorough-bred horses, which make the best hunters of any;—a fact no one who has ridden many of them will deny.

Weatherby's General Stud Book.

To assist in the detection of spurious blood, and the correction of inaccurate pedigrees, is the chief purpose of this excellent publication, now increased to a third volume, and forming a part of every sportsman's library. Some attempts have been made by Mr John Laurence, a voluminous, but by no means a correct, writer on the Horse, to disturb the pedigrees of several of the first stallions of their time, and from which several of the distinguished racers of the present day are descended; and all upon hearsay evidence, without being able to substantiate one single fact in proof of his vague assertions. He has doubted the pedigree of Eclipse, put the blood of Sampson into Highflyer, where it never existed, and has thought proper to pronounce Sampson to have been a low-bred horse, on the authority of some old Yorkshireman he picked up on the road, although in his last work on the Horse he admits him to have been one of "the truest four-mile horses that our Turf has produced; was but once beaten, and also proved a capital stallion, as sire of Bay Mollon, Engineer," &c. Such matters as this would be scarcely worthy of notice, were it not with a view of cautioning the public, foreigners in particular, from being led into errors respecting the purity of our racing blood. Sampson was an animal of immense power, so were John Bull and Alexander; he might have had coarse points, so have the stock of Partisan and Blacklock,

two of the best stallions of the present day; but who would deny their purity of blood on that account? Mr Laurence has been often called to account for these and similar mis-statements, but he is inaccessible to correction. *Sic accipi*, Anglice, "As I have heard," is the main foundation of many of his assertions; and he claims the woman's privilege of having the last word.

THE HUNTER.

There is no description of horse which could be applied to so many purposes, racing excepted, as the powerful English Hunter. Setting aside his own peculiar services in the field, he is fit to carry a man on the road, in the field of battle, and he answers for every kind of draught. Indeed, we are inclined to believe no horse would equal him in ploughing; and as for road-work on harness, either slow or fast, nothing could touch him, in a carriage properly suited to his powers. It is, however, no less true than singular, that out of a hundred sportsmen assembled at the meeting of a pack of fox-hounds, not half-a-dozen would be found mounted on horses which they themselves had bred. This arises from two causes: First, the greater part of them have not patience to await the arrival of a young horse at his best, and consequently sell the few they do breed, without giving them a fair trial; and, secondly, such has, of late years, been the prejudice against riding mares in the hunting field, that they have been chiefly left in the hands of farmers and yeomen, who are become the principal breeders of English hunters. Neither do hunters find their road direct from the breeder to the studs of noblemen or gentlemen. They generally go through the hands of an inferior country dealer, from whom they are bought by the principal London and country dealers, and sold by them to the sportsmen of the various hunts. There are, of course, exceptions to this proceeding. A great proportion of English yeomen and farmers are very excellent horsemen, and, as such, having the capability of making their young horses into hunters, and distinguishing them by riding them afterwards with hounds, obtain now and then as high a price for them as they fetch after having passed through the hands we have described. It is, however, to be lamented that the last-mentioned description of persons, the breeders and trainers of young hunters, do not, for the most part, realize such large prices as the first, although fully entitled to it, as a reward for their trouble and skill.

It is impossible to lay down any precise rules for breeding hunters, so many collateral circumstances being necessary to be taken into consideration. For example, Pennant, in his *Zoology*, says, "Our race-horses are descended from Arabian stallions, and the genealogy faintly extends to the hunter." From this we learn the interesting fact, that a wonderful change, within the last sixty or seventy years, has taken place in the form and character of this sort of horse, inasmuch as, in the opinion of some of the first of our English sportsmen, and such as put the powers of the horse to the most severe test, the hunter of the present day is not in his perfect form unless quite thorough-bred. This part of the subject we shall discuss hereafter; but as there are several of our hunting counties not at all suited to this description of horse, the thorough-bred hunter, and a large portion of our sportsmen who, some by reason of their weight, and others from prejudice against them, neither can nor will ride them, we may safely assert, that not more than a twentieth part of English hunters are at this time of quite pure blood. We will, however, set forth what we consider the best properties of the full-bred and the half-bred hunter, as he is called, as also the most probable means of breeding each kind to advantage; at the same time venturing an opinion, that, when their indivi-

Hunter.

Hunter. dual capabilities are put into the scale of excellence, the balance will incline to the former.

One great obstacle to the general success in breeding hunters is, not so much the difficulty of access to good stallions, but of making breeders believe that it would be their interest to send their mares to such as are good, although at an extra expense. Most rural districts, in other respects favourable to horse-breeding, swarm with covering stallions, the greater part of which have proved very bad racers; but which, falling into the hands of persons who are popular characters in their neighbourhood, and covering at a low price, get most of the farmers' brood mares sent to them, their owners never reflecting, as they gaze upon these misshapen animals, that Nature will not go out of her course to oblige them, but that, in the animal creation, "like begets like." Neither does the evil stop here. So much is this made a matter of chance instead of one of judgment, should the produce of a mare sent to one of these bad stallions be a filly foal, and she proves so defective in shape and action as to be unsaleable at a remunerating price, she remains the property of her breeder, and in time becomes herself a brood-mare. What, then, can be expected from such produce? Why, unless chance steps in and supplies the defect of judgment, in the first instance, admitting that she is sent to a better stallion than her sire was, by the procreative powers of the male so far exceeding those of the female, as to produce a foal free from the defects of the dam, another shapeless, unprofitable animal is produced. Nevertheless, in the course of time, perhaps this produce, if a female, however bad she may prove, is also bred from, and thus a succession of shapeless horses is produced, to the certain loss of the breeder, and much to the injury of the community. Under the most favourable circumstances, and with the aid of good judgment, we cannot consider horse-breeding to be a certain source of gain: yet there are many inducements to try it as one branch of rural economics. The money goes out a little at a time, or by degrees, and therefore it is suitable to such occupiers of land as cannot embark in more extensive speculations, and it returns in a lump, oftentimes at a most welcome moment, and, in many instances, of sufficient amount to render the average of former less profitable years sufficient to cover expenses, if not to leave a profit. There is likewise another inducement to breeding horses; we mean the interest inseparable from all human speculations, from which more than an ordinary return may be looked for, which is the case here; added to the nearly universal interest attached to the breeding and rearing of every species of domestic animals.

With respect to brood-mares designed for breeding hunters, we admit that circumstances, not always within control, have their weight. An occupier of land is possessed of a mare or two which he thinks *may* breed hunters, and having them, it may not be convenient to him to replace them by those which might be more likely to breed good ones. But the choice of a stallion is always within his control, and he should not spare trouble, and moderately increased price, in his selection. It is well known to all hunting men, that the stock of certain horses have been remarkable for making good hunters (we could name many of present and past times), and that there are such horses always to be found, on seeking for them. A few pounds extra, laid out by the breeder in putting his mares to such horses, are sure to be amply repaid; for the produce would be generally sought after and purchased, even previously to their being tried. Englishmen know of no such restrictions, nor do we wish they ever should; but the interference of the governments of several European states as to stallions for the use of their respective countries, reads us a useful lesson on this head; for it is well known, on the other hand, that a great number of stallions to which

English hunting mares have been put, have been equally remarkable for begetting soft infirm stock, quite unequal to endure, for any length of time, the severe work of a hunter. It should also be borne in mind, that even a first-rate racer may not be a propagator of first-rate hunters. The former is called upon to exert his powers on very different ground, and under very different weight to the latter, and the action which may suit one may not suit the other. This accounts for the stock of certain thorough-bred horses, which were very indifferent racers, proving very excellent hunters. We have already given it as our opinion, that a cross of Arabian blood is a great desideratum in that of an English hunter, and we need not urge this point farther; but if breeders would reflect, that the expenses of rearing a bad colt equal those of rearing a good one, they would attend more than they do to the following nearly unerring directions.

First, Observe similarity of shape in horse and mare. As length of frame is indispensable in a hunter, if the mare be short, seek for a stallion likely to give her length. Again, if the mare be high on her legs, put her to a short-legged stallion, and *vice versa*; for it is possible that even a hunter's legs may be too short, a racer's certainly may be. In fact, to form a complete hunter, it is necessary he should be more perfect in his shape than a racer, which will admit of imperfections that would quite disqualify the other.

Secondly, Look to constitution. As no description of horse endures the long-continued exertion that a hunter does, this is a point to be attended to. But it may be overdone. Horses of a very hard nature, very closely ribbed up, consequently great feeders, with large carcasses, seldom make the sort of brilliant hunter now the fashion in England. Besides, one of this description requires so much work to keep him in place and in wind, that his legs must suffer, and often give way when his constitution is just in its prime. Horses with moderately sized carcasses last longest; and, provided they are good feeders, will come out quite as often as they ought to do, and are invariably good winded and brilliant, if well-bred and of good form, with a few other requisites. We never saw a very closely-ribbed, large carcassed horse, brilliant as a hunter, and we know such form is not approved of in the race-horse.

Thirdly, and lastly, Let the breeder of any kind of horse be careful in avoiding either sire or dam that has proved constitutionally infirm. As has been already shown on very high authority, perfect or defective conformation is not more likely to be the result of a proper selection of horse and mare, than disease to be inherited from parents that have been constitutionally diseased. We could name stallions whose stock have been blind; others afflicted with splints, curbs, and spavins, and a mare which produced three roaners by three different sires. But it may be said, that splints, curbs, and spavins, are the result of malformation of the parts. Granted; but avoid all such malformation which is quite apparent to the eye in a breeding stud. It may perhaps be carrying this objection too far, were we to say, we would not breed from a mare or horse, which had become groggy or lame in the feet, from diseased navicular joints. Had the feet been more vigorously constituted, perhaps such lameness might not have occurred; yet it is but too probable that here the predisposing cause may be traced to over-severe treatment, and not to constitutional defect.

We have already expressed a regret at the prevailing prejudice against mares as hunters, admitting, however, that they are not to be so much depended upon at certain periods as the other sex. Nevertheless, no year passes over our heads that we do not hear of mares eminently distinguishing themselves on the race-course, in the hunting field, and on the road. Indeed, the majority of the extraordinary feats performed on the road have been performed

Hunter. by mares. As relates to breeding hunters, however, this prejudice against them is most injurious in two ways. First, it takes off so much from the value of a filly, as in few cases to leave the mere cost of breeding and rearing her; and, next, many a mare, which would have proved a capital hunter, had she been tried, and, as is reasonable to suppose, a capital brood mare as well, is lost to the hunting world by being sold for harness purposes; and then, if good, so ruined in constitution as to be totally unfit to breed from. On the other hand, were mares more generally used as hunters, all such as proved themselves good, that is, were they stout, and had the peculiar kind of action that enabled them to go well on deep ground, over ridge and furrow, and were good leapers, they might for the most part be relied upon for producing good ones to succeed them. It may likewise be observed that, as in this case, the risk would be diminished, more people would breed hunters than do at present; and it is very generally admitted, that, at this time, so great is the scarcity of young horses likely to make hunters, were it not for those annually imported from Ireland, the demand would far exceed the supply.

Next in importance to the judicious selection of sire and dam, is the rearing of the colt, which it is intended should make a hunter. It was the remark of a gentleman, who kept fox-hounds more than half a century, that "great part of the goodness of a horse goes in at his mouth," and nothing is more true. Nimrod, in his *Letters on the Condition of Hunters* (p. 223, first edition), says, "It is my confirmed opinion, that unless a colt be what is called 'deformed,' it is in the power of good keep, exercise, and physic, to make him what is termed 'a fine horse,' and one which will sell for a large price, either for harness or the saddle. No one who has not witnessed it, is aware of the improvement in shoulders, thighs, gaskins, &c. from good old oats, accompanied by regular work and proper riding." Breeders of hunters may be assured that such is the case; and that it is of little use to breed colts with the expectation of their making first-rate horses, unless they keep them *very well* in their colthood. They should also be treated *as horses* at a very early age. They should be ridden gently, and by a light man, or boy, with good hands, at three years old, across rough ground, and over small fences; and at four they should be shewn hounds; but they should only follow them at a distance, and after the fences are broken down; for, if put to take large leaps at that tender age, they are apt to get alarmed, and never make first-rate fencers afterwards. Above all things, avoid getting them into boggy ditches, or riding them at brooks; but they should be practised at leaping small ditches, if with water in them the better, in the middle of a field, the rider putting them at them in rather a brisk gallop. This gives them confidence, and, the natural result, courage. With respect to the use of the bar, and teaching colts to leap standing over it, the practice is now condemned, and the system of letting them become timber jumpers, by taking it, as it comes, in crossing a country, is preferred, the present rate of hounds not admitting of the time occupied in a standing leap.

Some sportsmen adopt, and we believe with good effect, what is termed the "circular bar." Every description of fence that a hunter is likely to meet with, is placed within a prescribed circle of ground, and in this is the colt lodged, the man who holds him standing upon a stage in the centre. As another man follows him with a whip, he is forced to take his fences at a certain pace; and, in a very short time, a good tempered colt will take them with apparent pleasure.

At five years old it is customary to consider a horse as a hunter; but we are inclined to demur here. It is true, that if a colt has been very well kept, on the hard meat system, he is enabled to go through a good day's work with hounds at five years old, being quite equal to a six-year

old, which has been kept on soft food, and not sufficiently **Hunter.** forced by corn; yet it is always attended with danger of injury to his joints and sinews, if not to his general constitution; and we cannot pronounce a horse to be a hunter until he has passed his fifth year. As muscular action, however, produces muscular growth, he should not be kept in idleness during his fifth year, but should be ridden to cover, or with harriers, before Christmas; and when the ground gets dry and light in the spring, a good burst with fox-hounds may not do him harm. We do not, however, consider any five-year old horse fitting or safe to carry a gentleman over a country, as he cannot be sufficiently experienced to take a straight line.

We have known some masters of fox-hounds who have preferred purchasing yearling colts, or weanlings, at Michaelmas, to breeding them for their own use. The classical reader cannot fail calling to his recollection here the practical lesson which Virgil, in his third *Georgic*, imparts on this head; neither can the purchaser of such animals do better than follow it to the very letter. Should he fix upon the one which, as he describes him,—

"Primus et ire viam, et fluvios tentare menaces
Audet, et ignoto sese committere ponti,"

he would be pretty certain of having in due time a first-rate hunter, that would turn his tail to nothing. Nor should the breeder overlook the poet's advice to keep his young stock well, if he wishes to have them in the high form (and can any thing be finer?) in which the one of his own choice is presented to us in this most splendid passage.

There are undoubtedly certain advantages attending purchasing yearling colts, with the view of making hunters of them. Such only may be selected as appear calculated for the country they are intended to cross, and the weights they will be called upon to carry; whereas, were the master of hounds to depend on the produce of his own mares, he might be disappointed in being able to select the number he would require to replace, in due time, the vacancies which occurred annually in his stud. We should consider the sum of thirty-five or forty guineas for a good colt, at weaning time, a fair remuneration to the breeder, and well laid out by the purchaser.

Previously to giving directions for the purchase of a full-grown hunter, we shall proceed to exhibit him in his highest form, although we are aware of the difficulty, on certain subjects, of conveying, clearly, an idea from our own mind to that of another. We shall, however, endeavour to make ourselves understood by describing each individual point. As to the form and shape of a hunter's head, as we do not ride upon it, it is not of much consequence, provided it be well hung on, and that is of the very highest importance, not only, as we have shewn in the race-horse, on account of his respiration or wind, but unless it be so, he cannot be pleasant to ride. Not only must his jaws be wide, but when we consider that the head of a horse hangs in a slanting position from the extremity of the neck, and that the neck itself projects a considerable distance from the chest, on the muscular strength and proper formation of the neck must also depend whether a horse be light or heavy in hand, and consequently pleasant or unpleasant to ride. A weak or loose neck may not be so material, as we have before observed, to the race-horse; he is generally ridden in a martingal, and in that case always; add to which, his race is soon run. Nevertheless, we like to see the neck of the race-horse rise out of the shoulder with a tapering curve, in which case he is pleasant to ride in his gallop, and, if a hard puller, his jockey has much more power over him than if his neck were loose and low. But, in a hunter, the proper position of his head is a *point of the greatest moment*, as without it his rider cannot handle him properly

Hunter. at his fences ; and if he be not a regular star-gazer, he is always dangerous to ride over a country. The proper junction of the head with the neck, and the carrying of it well or ill, depend chiefly on two particular muscles contained in the neck. The most important of these is called the splenius muscle, which constitutes the principal bulk of the neck above, and its action is sufficiently evident, namely, very powerfully to elevate the head and neck. The principal beauty of the neck, indeed, as well as the carriage of the head, depends on this muscle ; and its ample developement is a point the sportsman should attend to in the choice of horses that are to carry him with hounds. A certain degree of muscularity of the neck is absolutely necessary in a hunter, and it is greatly promoted by good keep in colthood ; also by delaying the period of castration till the second year, which should invariably be done, when the want of this muscularity is apparent in the first. It must, however, be observed, that there is a medium in this muscularity of the neck, although excess is the better extreme of the two ; for when the neck of a horse appears, like that of a sheep, to rise out of the chest, and so far from being arched above, and straight below, is hollowed above, and projects below, such a horse is nearly worthless for any pleasurable purpose, as his head cannot, by any means whatever, be got into a proper place.

It has been said, that a horse with a long neck will bear heavy on the hand. We do not believe that either the length of the neck, or even the bulk of the head, has any influence in causing this. They are both counterbalanced by the power of the ligament of the neck. The *setting on* of the head is most of all connected with heavy bearing on the hand ; and a short-necked horse will bear heavily, because, from the thickness of the lower part of the neck consequent on its shortness, the head cannot be rightly placed. The head and neck, however, should be proportioned to each other. A short head on a long neck, or a long head on a short neck, would equally offend the eye.

Although length of neck in a hunter is not desirable, length of shoulder is indispensable. Horses have raced well with short upright shoulders ; but it is impossible that one so formed, however good he may be in his nature, or even in his general action, can be a safe hunter, and for this reason : A hunter is constantly subject, by down-hill leaps, leaping into soft ground, and getting his fore-legs into grips, or unsound ground, to have the centre of gravity thrown forward beyond the base of his legs ; and it is more or less recoverable according to the length or shortness of his shoulder. By length of shoulder is meant obliquity of the scapula, or shoulder-bone, by which the point of the shoulder is projected forward, and which, added to the obliquity of the scapula, enables the rider to sit considerably behind, instead of nearly over the fore-legs, or pillars of support, which, on a short and upright-shouldered horse, he must do. One remark, however, must be made respecting the oblique shoulder. It is sometimes not sufficiently supplied with muscle, with which the upright shoulder generally abounds. We therefore recommend purchasers of young horses for hunters, to give the preference to what may *appear* coarse shoulders, nay, even inclined to be somewhat round, or flat on the withers, provided they are accompanied by the necessary and absolutely essential obliquity of the shoulder-bones.

The setting on of the arm, which should be strong, muscular, and long, is of much importance to a hunter. By the length of this part in the hare, as we have already observed, added to the obliquity of her shoulder, she can extend her fore-parts further than any animal of her size : in fact she strikes nearly as far as the greyhound that pursues her, by the help of this lever. The proper position of the arm, however, is the result of an oblique shoulder.

When issuing out of an upright shoulder, the elbow joint, the centre of motion here, will be inclined inward ; the horse will be what is termed "pinn'd in his elbows," which causes his legs to fall powerless behind his body ; and he is seldom able to go well in deep ground. There are exceptions, but they are rare. A full and swelling fore-arm is one of the most valuable points in a horse, for whatsoever purposes he may be required ; and although we have occasionally seen hunters with light thighs carry weight well, we never have seen it so carried by horses deficient in their arms.

If sportsmen were to see the knee of the horse dissected, they would pay more attention to the form and substance of it than they generally do. It is a very complicated joint, but so beautifully constructed that it is seldom subject to internal injury. Its width and breadth, however, when considerable, are great recommendations to hunters, as admitting space for the attachment of muscles, and for the accumulation of ligamentous expansions and bands, greatly conducive to strength. Below the knee is a point on which we will not say much here, as we have already alluded to it in our remarks on the race-horse. We mean the shank, or cannon bone, and its appendages. It can scarcely be too short in a horse that has to carry a heavy man ; round legs are almost sure to fail ; those of the hunter should be flat, with the back sinews strong and well braced. This constitutes what sportsmen call a "wiry leg."

The fetlock is also a complicated joint, and very liable to injury. In a hunter it should be large and strong. But as regards his action, the pastern is still more material, and also to his standing sound. Very few horses with short pasterns can go well in deep ground, and for this obvious reason : The action of the joint is destroyed by getting below the surface of the ground, and is of course sooner immersed than when it is longer. But a greater evil than this attends a short pastern. It is the predisposing cause of navicular lameness, particularly in horses carrying weight, owing to the foot being deprived of that elasticity which a longer pastern affords, and which consequently relieves the concussion on the foot coming to the ground in galloping and leaping, as well as on the hard road. Horses with short and, consequently, upright pasterns cannot be pleasant to ride, and they seldom stand many seasons' work. Excess in either should be avoided, but of the two, a hunter is less objectionable, from the extreme of length, than of shortness, in this most material part.

That the foot of the hunter should be wide, is also obvious to the meanest capacity, independent of its being the form most conducive to health. The nature of the ground he has to travel over requires at times the widest base he can present to it, as a foundation for his great bulk, and thus the farmer carries out his manure upon tender land, in a broad and not a narrow wheel cart. Xenophon relates, that certain people of Asia were accustomed, when snow lay deep on the ground, to draw socks over the feet of their horses, to prevent them sinking in it up to their bellies ; and we know why an ox sinks less in soft ground than a horse does. It is because his foot enters it expanded, by means of the division of the claws, and when he draws it out it is contracted. The foot of the hunter, however, should not be too wide, or it may operate against his speed.

The position of the fore-legs of the hunter admits of more latitude than that of his hinder ones, or indeed of any other part of his frame. We have seen brilliant hunters standing in all positions and postures as regards their fore-legs. Some very much over the knees, that is, with the knees bent and projecting outward ; many upon very twisted fetlocks, turning the toes out ; and a few, though only a few, turning the toes in. In the human frame, a certain squareness in the position of the feet is consistent with strength, as we see in the statues of Hercules, but the

Hunter.

Hunter. lightness of a Mercury is indicated by the direction of the toe outwards. This is to a certain extent the case with the horse. Although, if measured by the standard of perfection, his toe is required to be in a direct line with the point of his shoulder, yet we have seen and heard of some of the speediest and best racers and hunters, the position of whose fore-feet have deviated considerably from this supposed essential line; but the inclination of the toe outwards is so common in horses used for these purposes, that it can scarcely be called a fault. Indeed, some persons argue, that a leg so placed affords a broader base to the superincumbent weight, than when quite in a line with the shoulder, that is, provided the twist arises from the fetlock, and not from the setting on of the arm. Be this as it may, we are well assured that, provided the hinder legs and quarters are good, a hunter will admit of a considerable deviation from the true line in the fore-legs, and carry his rider brilliantly. It is well known, that a much more twisted fore-legged horse could not well be seen, than the celebrated Clipper, the property of the equally celebrated Mr Lindow, for many years said to be the most brilliant hunter in Leicestershire.

But there is one portion of the fore-quarters of the hunter to which a rule must be applied, that will not admit of an exception. He must be deep in his chest or brisket, that is, from the top of the withers to the elbow. Numerous are the narrow, but deep horses, in their "girth," as the term is, that have carried heavy weights in the first style with hounds; but no matter how wide a horse may be, if he have not depth, he cannot carry weight, and is very seldom a good-winded horse, even under a light man. One of the greatest compliments, then, that can be paid to a hunter, at first sight, is, that he appears two inches lower than he really is. Such, however, is the case with horses whose growth has been forced in their bodies by good keep when young, and thus they come under the denomination of "short-legged horses," so much esteemed by hard riders. They are likewise, for the most part, better leapers than such as have less growth in the body, and stand upon longer legs.

We have before observed, when speaking of the race-horse, that large bone is not required in his cannon or shank (the part from knee to fetlock), neither is it in the hunter. The real power of all animals is in the muscles, sinews, and tendons; and the leg best calculated to carry weight and endure to a good old age, is that in which the bone is small, but of a dense and perfect texture, and in which three convexities can be very plainly distinguished, namely, the bone; the elastic ligament behind the bone, called the sinew; and, behind that, *the flexor tendons, large, round, and strong.* The rare combination of strength, with lightness, is here beautifully displayed, and is one of the many instances which might be produced, to show how Nature delights to work with the least possible expense of materials.

The hunter should have length in his shoulders and quarters, and, to a certain extent, also in his back. It is true that horses with short backs carry weight best up a steep hill, which, as that is the worst method in which this animal can employ his strength (in man it is the best), shows that heavy men should ride short-backed horses. For hunters, however, that are ridden in our best hunting countries, which, previously to being laid down in grass, were thrown up by the plough into high ridges, with deep furrows, must have *moderate* length of back, or they cannot go smoothly over such ground. Good loins, with width of haunch (the *vis a tergo* being so necessary in leaping, as well as galloping on soft ground), need scarcely be insisted upon; and we now proceed to the hinder-legs, the proper or improper form of which makes the difference between a good or bad hunter, if a horse with badly formed hinder-legs can be called a hunter at all. But a horse with

short, straight, and weak thighs, cannot make a *good* hunter. **Hunter.** Even admitting that they are not weak, but short and straight, yet the objection remains, because he cannot, in the latter case, be pulled together in his gallop, nor have his stride collected to enable him to take his fences properly; and, what is not generally known, he is almost certain to be a hard puller. Indeed, some good judges go so far as to assert, that horses with straight hinder legs, never have good mouths, and there is much truth in the remark, as their form will not admit of their being "pulled together," as the horseman's term is, in their quick paces, and without it no horse is safe. A long and muscular thigh, then, with a clean well-placed hock, is one of the most material points in a hunter, and also one by which the duration of his services may very nearly be measured; as when much out of the true form, either inclining inwards, like the cow, or outwards, like the bandy-legged man, disease is almost certain to attack this very complicated but beautifully contrived joint, when put to severe exertion, especially in soft ground. The shank-bone of the hinder leg, below the hock, ought to be equally well supported by sinews and tendons with that of the fore-leg; and the pastern of the hind-leg should resemble that of the fore-leg, moderately long, strong, and oblique.

But such is the paramount importance of the hock in the hunter, that we transcribe the following admirable description of one most material point in it, (from Part IX. of "The Horse," Farmer's Series, p. 272.) "The most powerful of the flexor or bending muscles are inserted into the point of the hock, or the extremity of the os calcis; and in proportion to the projection of the hock, or, in other words, the length of this bone, will two purposes be effected. The line of direction will be more advantageous, for it will be nearer to a perpendicular; and the arm of the lever to which the power is applied will be lengthened, and mechanical advantage will be gained to an almost incredible extent. Suppose this bone of the hock to be three inches in length, the joint formed by the tibia and the astragalus is evidently the centre of motion, and the weight concentrated about the middle of the shank is the obstacle to be overcome. If the weight be four times as far from the centre of motion as the power, a force equal to four times the weight would raise it. It is, however, here to be remembered, that it is not merely the weight of the leg which is to be raised, but the weight of the horse, for the time resting upon the leg, and that weight to be propelled or driven forward. At what shall we calculate this? We may fairly suppose that the muscles, whose tendons are inserted into the point of the hock, exert an energy equal to 4000 lb. Let us further suppose, that an inch is added to the point of the hock, which will be an addition of one-third to its length: a muscular power of less than 3000 lb., will now effect the same purpose. The slightest lengthening, therefore, of the point of the hock will make an exceedingly great difference in the muscular energy by which the joint is moved, and a difference that will wonderfully tell in a long day's work. On this account, the depth of the hock, or the length of the bone of which we are speaking, is a point of the greatest importance. There is, however, a limit to this. In proportion to the length of this bone, must be the space which it passes over, in order sufficiently to bend the limb; and in that proportion must be the contraction of the muscle, and consequently the length of the muscle, that it may be enabled thus to contract; and, therefore, if this bone were inordinately lengthened, there would require a depth of quarter which would amount to deformity. A hock of this advantageous length is, however, rarely or never met with, and it is received among the golden rules in judging of the horse, that this bone of the hock cannot be too long."

Hunters which carry very heavy men cannot excel in

Hunter. the field, unless they exhibit those just proportions in their limbs, and all the moving levers, necessary to produce full liberty of action, but not too long a stride. Well placed hinder legs, with wide hips, well spread gaskins, and great depth of chest, are essentials, and as much of the *vis a tergo*, as is consistent with a not unsightly back, commonly called "hog-backed." Well knit joints, short cannon bone, moderately oblique pasterns, with rather large feet, are not only points from which great physical powers may be expected, but they are necessary to the duration of them in the horse we are now alluding to. As, however, it is an axiom in the animal creation, that the parts which add to strength diminish swiftness, hunters to carry more than sixteen stones well with hounds, at the pace they now run, are always difficult to be procured, and ought to command good prices. The stamp of animal most approved of for this purpose, is the short-legged, thick, but well-bred horse, not exceeding sixteen hands in height, but appearing, to the eye, half a hand below that standard. As for his general appearance, it is "handsome is, that handsome does," in this case; and we must not look for beauty in all his points.

Having now described each individual external part of the horse essential to his being a good hunter, we shall, in a few words, exhibit him to the reader's view in what we consider his best form. He should have a light head, well put on, with a firm, but not a long neck; lengthy, and consequently oblique, shoulders, with very capacious chest, and great depth of girth; a long, muscular fore-arm, coming well out of the shoulder, the elbow parallel with the body, neither inclining inward nor outward; a short cannon or shank, with large tendons and sinews, forming a flat, not round leg; an oblique pastern, rather long than short, and an open circular foot; the back of moderate length, with well developed loins and fillets, and deep ribs, making what is termed by sportsmen a good "spur-place." From the loins to the setting on of the tail, the line should be carried on almost straight, or rounded only in a very slight degree. Thus the haunch will be most oblique, and will produce a corresponding obliquity in the thigh-bone, which formation is peculiarly characteristic of the well bred horse. The dock of the tail should be large, the buttocks close together, and the fundament small, and somewhat resembling the front or eye of the pippin apple. The thighs should be muscular and long, rather inclining inwards, with large lean hocks, the points appearing to stand somewhat behind the body, which will bring the lower part of the hind-leg, or shank, under it. The shank, fetlock, and pastern of the hinder-leg, should exactly resemble those of the fore-leg, as also should the foot. The legs should appear short, from the great depth of chest, and well-proportioned substance of the body, or middle-piece.

The stature of the horse is no more absolutely fixed than that of the human body, but a medium height is considered as best for a hunter, say fifteen hands, two or three inches. For one good horse over this height, there are a hundred under it. In fact, there are, in the operations of nature as well as of art, limits which they cannot surpass in magnitude, and it is known that no very large animal has strength in proportion to its size. That the horse has not, the pony affords proof, if any other were wanting. Even the heaviest weights find horses about the height we have fixed upon best calculated to carry them. There have been many extraordinary instances of horses, little more than fourteen hands high, being equal to the speed of hounds over the strongest counties in England, for example, Mr William Coke's "Pony," as he was called, many years celebrated in Liecestershire; but they are not pleasant to ride, by reason of the fences, when high, appearing higher to the rider than when he is mounted on a taller horse.

VOL. XI.

Temper and mouth are essential points in a hunter. **Hunter.** The former adds much to his value, not only as it contributes to the pleasure and safety of his rider, but a horse of a placid temper saves himself much in a long day's work with hounds, and especially when there is much leaping. Indeed, fretful horses are proverbially soft, and not generally to be depended upon at a pinch, which caused Shakspeare to make them the symbol of false friends. Thus Julius Cæsar exclaims,

"Hollow men, like horses, not at hand,
Make gallant show, and promise of their mettle;
But when they should endure the bloody spur,
They fall their crest, and, like deceitful jades,
Sink in the trial."

A hunter should have courage, but nothing more, to make him what he is required to be, namely, not afraid to leap at any fence his rider thinks proper to put him at. His mouth will depend upon two things; first, upon the judgment of the person who breaks him in, in his colthood, and, secondly, upon the position of his hinder legs, but chiefly upon the first. It ought to be endowed with so great sensibility, that the slightest motion of the bit should give him warning, and direct his course, which is significantly implied by Horace, when he said, "the ear of a horse lies in his bridle." It is true, that what we call the "mouth" of a horse, is an artificial feature, at all events, a figurative term for his being easily acted upon by the bridle; but it is a point of the utmost importance in a hunter. Without it, in short, he is absolutely dangerous to ride; for although the skill and power of his rider may prevent his running away, yet he is always in danger of being placed in some unpleasant situation or other by him. In the first place, he cannot be a large fencer, nor safe at all sorts of leaps, if he will not suffer his rider to pull him together, to collect him for the effort of rising at them. Secondly, he is as dangerous in going through gates, only partly opened. Thirdly, if the horse immediately before him should fall at a leap, he is very apt to leap upon him, or his rider; and, lastly, his strength is sooner exhausted than that of a horse, perhaps not naturally so good, which is going quietly, and within himself, by his side.

No doubt many of the ancient writers were good judges of horses, although they were deficient, compared with the moderns, in availing themselves of their highest capabilities. Were a purchaser of a hunter to look no further than the first chapter of Xenophon *πρὸς ἵππους*, he would find hints that would be well worthy his attention; and nothing can be more expressive of the evils attending a bad mouth, in a horse of this description, than the following sentence from Pliny, "*Equi sine frænis deformis ipse cursus, rigida cervice, et extento capite, currentium*," which may be thus translated: The career of a horse without a bridle is disagreeable, carrying his neck stiff, and his nose in the air. When we consider how often it is necessary to pull up, or to turn a horse very short in crossing enclosed countries, the value, even on the score of comfort, of a good mouth cannot be too highly appreciated by the sportsman.

We now come to the action of the hunter, which, after all, is the main consideration. He should have energy in all his paces, but he may have too much of what is generally called action. Nothing conveys to us a better idea of that which is adapted to his business, than the concluding sentence of a huntsman of former days, when describing to his master a capital run with his hounds. "The old mare," said he, "*carried me like oil*." The action of the hunter should be *smooth*, or it will not last. His stride in his gallop should be rather long than otherwise, provided he brings his hinder legs well under his body; and the movement of the fore-legs should be round, but by no means high. Above all things, there should be no "*dwell*—

4 E

Hunter. *ling*," as it is called, in the limb coming to the ground; a great obstacle to speed, but often the accompaniment of excessive action in the fore-legs. But the test of action in the hunter, is in what sportsmen call "dirt," that is, in soft, tender ground, or when passing over such as appears dry on the surface, but is not sufficiently so to bear his weight. It is not exactly in the power of the best judges to determine whence this peculiar excellence, which some horses possess over others apparently well-proportioned, arises, for which reason the eye should never be depended upon in the selection of horses for the field. Wisdom here can only be the produce of experience; and many sportsmen have paid dear for it on this particular point. In fact, nothing next to ascending steep hills under great weight, puts the physical powers of a horse to so severe a test as carrying a heavy man, at a quick rate, over a country that sinks under him at every step. Mere strength alone will not do it. It must be the result of a combination of strength with agility, good wind, and speed, to produce which, the most perfect arrangement of the acting parts, although the exact symmetry and proportion of them may not be exactly discernible to the eye, are requisite, and, we may be assured, are present. As the beauty of all forms is, in great part, subordinate to their utility, a horse of this description, that is, one which can carry sixteen stones well up to hounds in any or in all countries, at the rate they now run, not only, as has before been observed, commands a very high price, but, to a person who loves to study nature, presents a feast to the eye.

A hunter should be what is called very quick as well as very fast; by which is implied, that he should not only have great speed, but that he should be very quick in regaining his speed after taking his leap, or being pulled up from any other cause. One so gifted will cross a country, especially a close one, in less time than one that is more speedy, but not so "quick on his legs," as Jockies term it. It is also very agreeable that a hunter should be safe in his slow paces on the road; and, if a fast trotter, he relieves himself by changing the action of the muscles, when the pace of hounds so far abates as to allow him to break into a trot,

Leaping.

One of the greatest accomplishments in a hunter is being a perfect and safe leaper. The situation of a sportsman riding a horse that is "uncertain," as the term is, at his fences, may be compared with that of the philosopher which Cicero describes in his Tusculan Questions, (5. c. 21), as seated on the throne of Dionysius, gazing upon the wealth and splendour that surrounded him, with a naked sword suspended over his head by a single thread. But a horse following hounds often leaps under very great disadvantages, which accounts for the numerous falls sportsmen get. Putting aside the labour of rising from the ground, which, to the horse, with a weight on his back, must be great, from the earth's attraction and the body's gravity, he has often to take his spring without any fixed point for support; whereas, in most other cases, leaping takes place on a fixed surface, which possesses the power of resistance in consequence of its firmness. Nevertheless, although the surface yield to a certain degree, leaping can still be performed, notwithstanding the retrograde motion of the surface produces a great diminution in the velocity of the leap, compared with that which is made from firm ground; and the velocity is always greater in proportion as the resistance is perfect. Thus it is, that we find horses able to cover much greater obstacles in Leicestershire, and the other grass countries, where the taking off for the leap is generally good and sound, than they can cover in ploughed and marshy districts, where they have not that advantage, from

the less firm state of the soil. We shall now endeavour to point out the form most likely to constitute a good leaper.

The very worm that crawls on the ground first carries its contraction from the hinder parts, in order to throw its fore parts forward; and it is chiefly from the *vis a tergo*, or strength of back, and hinder quarters, that the power of leaping in a horse is derived. It must, however, be admitted that oblique shoulders give him a great advantage, by enabling him to extend his fore quarters; but if his loins be loose and weak, and his hinder legs ill placed, with weak hocks, he cannot make, in any one's hands, a safe and perfect leaper. But the position of his head has something to do with it. A plank placed in equilibrio cannot rise at one end unless it sinks at the other; and although a horse in light harness cannot, for appearance's sake, carry his head too high, provided he be obedient to the rein, the hunter should carry his low. A colt, running wild, never raises his head when he leaps, but rather lowers it, and so should the hunter; and he is always less liable to fall in galloping over a country when he carries his head low; likewise, in horses with lengthy shoulders, the seat of the rider is rather benefited than injured by it.

The sort of fence that stops hunters more than any other description of obstacle, is a wide brook; and, like all other wide places, it takes a good deal out of him, if he clears it. Lengthy horses are the best brook jumpers; but they require good loins and hinder quarters as well, and, above all things, *courage*. Unless a horse takes a wide brook in his stroke, he is almost sure to be in it; for which reason he is generally ridden fast at it, and, for the most part, not allowed to see it till he comes close to it. Immense space has been covered by horses when jumping brooks, particularly when there has been a difference of elevation of the banks in favour of the horse. We have heard of thirty feet and upwards from hind foot to hind foot; but half that space *in water* is considered a good brook, and even if the banks are sound, stops a great part of the field. When unsound, it requires a horse, coming under the denomination of a "good brook-jumper," to clear it without a fall, and particularly, if towards the end of a run.

To be a good timber leaper is a great desideratum in a hunter, although many horses are great timber leapers, but, from their form, can never make good hunters. It only requires a short backed, truss-horse for this purpose; and he can dispense with the general length so necessary to the complete hunter. Good and well-formed thighs, however, are necessary. For those hunting countries, such as Cheshire, where the hedge is generally placed on a bank or "cop," as it is there styled, rather a short but very active horse performs best. But he must be very good in his hinder legs, and very quick in the use of them. Wall jumpers come within the same class with timber jumpers as to make and shape.

There is one faculty in which the horse is wanting, that would, if he possessed it, give him a great advantage in leaping. In the human species, the power and influence of feeling are inherent, in a great degree, to the very tips of the fingers; but the horse has no proper organ of feeling or touch. When a man takes his spring for a leap, or leaps on the top of any substance, he has a distinct and certain sense or knowledge of the nature of the ground from which he has sprung, and of the substance on which he has alighted; but, from the insensible nature of the horse's hoof, such feeling is, in a great measure, denied to him, and indispensably so too. Still, however, there are a few instances upon record of horses going very well over a country even after having undergone the operation of neurotomy, by which all sensibility, from the fetlock downwards, has been destroyed.

Looking at the pace of hounds, and the manner of riding after them, which have so materially changed within the last

Hunter. half century, it is insisted upon by some that the hunter of the present day ought to be of full blood. Reasoning from analogy indeed, between the powers and capabilities of one and another, we are decidedly in favour of that breed which has the greatest share of strength within the smallest compass, and such is decidedly the character of the thorough-bred horse. Independently of this, the thorough-bred horse, when perfect, and with substance, is peculiarly fitted for what a hunter is called upon to perform; and those persons who assert to the contrary, can only do so in ignorance of the nature of his constituent parts. He has more depth and declivity in the shoulders than the lower bred horse has, and is consequently clearer in his wind. By these means, he can better extend and elevate his fore feet in going over rough ground, and at his leaps; and, by the curve or circular figure he makes with his hinder legs, he stands more secure on all kinds of ground, and, above all things, he bears being pressed better than any other description of horse; for, although blown, he soon recovers his wind. Having said this, it may scarcely be necessary to add, that several of our first-rate sportsmen of the present day will not ride any thing that is not of full blood; and such description of horse, when perfect in his work, as well as in his form, commands the highest price.

Nevertheless, the necessity for the thorough-bred horse in the field is belied, by the experience of all unprejudiced sportsmen, and even in Leicestershire, where the best studs are to be found, not a twentieth part of the hunters are of that description. But this perhaps arises from three causes. First, there is a difficulty in procuring full-bred horses to carry even moderate weights, and speed is but a second attribute to a hunter. He must have sundry other qualifications, and the most prevailing objections to the thorough-bred horse are generally these: He is apt to be deficient in substance to carry high weights over rough and deep countries, without trespassing too much on the virtue of his high descent. Secondly, he is inclined, and especially if he have been trained, to be shy of facing rough and thorny fences, by reason of the delicate nature of his skin, rendered so by repeated sweats in clothes, when in training. It often happens, indeed, that even the cheering influence of hounds, which has so much effect on other horses, will not induce him to take them. In fact, which may appear extraordinary, he does not appear to have in the field the courage of the half-bred horse. Lastly, his feet are apt to be small, in which case he sinks deeper in soft ground than does the lower-bred horse, whose feet are larger and wider, and thus suffers more than the latter does, in crossing a deep country. As for his powers of endurance under equal sufferings, they doubtless would exceed those of the cocktail, and being, by his nature what is termed a "better doer" in the stable, he is sooner at his work again than the other. Indeed, there is scarcely a limit to the work of full-bred hunters of good frame and constitution and temper.

A sportsman, partial to thorough-bred hunters, should either breed them, or purchase them, not exceeding two years old. If he breeds them, he should select large and bony mares, putting them to horses who have hunting action, such as Tramp had, and several more we could name; and, if he buy them, it will be his fault if he do not buy those of the right stamp. From their never having been trained, but ridden over rough ground in their colthood, they would have freer and higher action, and, when castrated at a proper age, would very rarely fail making first-rate hunters. But it may be asked, why subject them to the enervating operation of castration, which, as Perceval says, stamps their form and character with the seal of imbecility and pusillanimousness? Our answer here is, that we would not do it, if experience did not shew that by far the greater number of entire horses, used as hunters, are

either dangerous in a crowd, and when pressed upon in gateways; or given to refuse their fences, when they feel themselves somewhat distressed; and, if once well tired, are not to be depended upon afterwards. When free from these defects, they are doubtless superior to either geldings or mares.

Purchase of a Hunter.

Although it may not be necessary that a person should be perfectly acquainted with the mechanical structure of the horse's frame, according to the laws of nature, to render him a good judge of a hunter, yet, fortunately for such as have them to sell, vast numbers of persons purchase hunters from very slight experience of them, regardless of the proverb of, "he hath a good judgment who doth not rely on his own." There is also another proverb, prevalent, we believe, in Spain, which well applies here:—"He that would buy a mule without a fault must not buy one at all;" and, although faultless hunters may be as rare as faultless riders of them, we will offer a few hints to a person in the act of purchasing one, addressing him in the colloquial style.

First, bear in mind the country you are about to hunt in, whether flat, hilly, firm, soft, open, or enclosed, and refer to the remarks we have made on the sort of horse we have adapted to each; only be assured that in an open country, especially if a hilly one, nothing has a chance with a thorough-bred horse, in good form, and not over-weighted. Secondly, consider well your weight, and be sure to have at least a stone to spare. A light man on a light horse throws away all the advantage of being light, and can go no faster, or leap larger fences, than a heavy man on a strong horse, *for strength will be served.* Until you try him, it is hard to say what horse will make a hunter, but the following indices may induce you to try him: If he appear well-bred, with a loose, bright skin, which may be called his complexion; observe that his hair does not stand hollow from the skin, particularly about the poll of his neck. If you find him standing over a good deal of ground, it is a sure sign that he has got length where it ought to be; not in the back, but from the obliquity of his shoulders, and the arm being set on at the extreme point of his shoulder, which so much contributes to the act of extension of the fore parts in galloping, leaping, and clearing grips. Next examine minutely his thighs and hocks, being especially careful to observe the position of the point of the hock bone. Above all things, avoid a short, or an overtopped horse. The former will never carry you to your satisfaction, however good he may be in his nature; and the latter, from being too heavy for his legs, will seldom last many years. As for the minor points, common observation alone is wanting. Have his head placed in such a situation as will enable you to satisfy yourself that he has perfectly organized eyes, free from incipient cataract, sometimes rather difficult to be detected; and as for his age, there are but two ways of satisfying yourself on that point. By his teeth till about eight years old; afterwards by the state of his legs, which are, in fact, the best test of his value, the best proof of what he has done, and the sure source of speculation as to what he may hereafter be expected to do. Observe, also, his joints, that no material injury has been done to them by blow, &c., and that they are strong.

But the purchaser of a hunter must not trust to his eye. Neither must he be satisfied with him, how well soever he may gallop with him upon *sound* land. It is the peculiar excellence of "going well through dirt" that renders a horse valuable for all our best hunting countries; and no man can assure himself that a horse has this peculiar excellence, until he puts him to the test. The best method of doing it is this: The rider should put him along at a

Hackney. good pace, with a slack rein, upon sound ground, letting him find himself all at once upon that which is soft and holding. If, on quitting the former, he cringes more than might be expected under the weight, and shortens his stroke much, he must not purchase him for a hunter. He may go well over a light, down country, but he will never distinguish himself over a heavy one, as he will be going in distress, when other horses are going comparatively at their ease. Horses possess gradations of excellence in this natural qualification, or gift, more than in any other, but in it consists the *summum bonum* in a hunter; inasmuch as, whatever may be his other good qualities, they are all useless, when the acting parts are, from this cause, deep ground, easily over-fatigued. With regard to his wind, he must not judge hastily of that, in a horse not in work. Should he not perceive any thing like whistling in his respiration, when he puts him along at a quick pace, and his chest is capacious and deep, and his head well set on, he is not to reject him, in case he appears blown by a short gallop. Condition and work will rectify that; but many a good hunter has been rejected on this account, by persons not taking into consideration the state of his bodily condition, in a trial of this nature.

The price of the hunter varies with the times, and, no doubt, is as much regulated by the price of wheat as the quartern loaf is. During the war prices, the sum of a thousand guineas was occasionally given, and that of five hundred guineas frequently. Half the last-mentioned sum now commands a first-rate hunter. But first-rate horses, in all ages of the world, have ever produced extravagant prices. It is recorded of Alexander the Great, that he gave four Roman talents for Bucephalus, which approaches near to the Melton Mowbray prices, and those, we may safely conclude, stand at the head of the list.

THE HACKNEY.

Under this term are comprised the following: The Cover Hack, the Park Hack, the Lady's Horse, the Roadster, the Cob, the Galloway, and the Pony.

The difficulty of procuring really good hacks is admitted by all persons who have kept them for the various purposes of either business or pleasure, and for the following obvious reasons. First, very few people try to breed hackneys, therefore, although we require them to be nearly perfect in shape and action (and perfect they should be to be "really good hacks"), they may be said to be failures in the breeding stud after all. Secondly, by reason of their appearing to be failures in their colthood, they are not forced into good shape, as more promising young horses are, by high keep and care. Lastly, If a man has a really good hack, he is unwilling to dispose of it at the price generally given for such animals. But a question arises, What is a good hack? It cannot be answered but with reference to another question, namely, What description of person is he to carry? The horse that a sober citizen of London or Edinburgh would call a perfect hackney to carry him to his country seat, would not be worth five shillings to a Newmarket or a country jockey, or as a cover hack to a Leicestershire or Warwickshire sportsman. We will commence, then, with the cover hack, and describe the others in their turns.

The Cover Hack of the present day is very difficult to be procured, because he must unite, with the good qualities of the roadster, the requisites and accomplishments of the hunter. In fact, he must be a hunter in miniature; and, after all, the form of the hunter is the best calculated for a roadster. He must be fast in all his paces, able to gallop well on deep or soft ground, and equal to carrying his rider over moderately-sized fences; and if taught to leap

timber, standing, his value is proportionally increased. **Hackney.** But, above all things, he must go from twelve to fifteen miles in the hour, when wanted, without showing any symptoms of distress; and he is too often unnecessarily called upon to perform much more than this, by his owner delaying the period of his leaving home in the morning, for the purpose of meeting hounds. It may also be observed, that it is not every sportsman who keeps two cover hacks, although he may keep six or eight hunters; and it often happens that the cover hack does more work than any horse in the stable, although in justice it should be stated, that the same care in the stable is now taken of him as of the best hunter in it.

Unless to carry a great weight, the cover hack should be all but thorough-bred, if he cannot be procured of quite full blood; with excellent legs and feet, lengthy and elevated shoulders, and with a susceptibility of mouth that will not only enable his rider to keep him well on his haunches, to guard against danger when going fast on all sorts of roads, but as tending to lessen the fatigue of riding him; and the strength of his rider should be reserved for his day's diversion after hounds. The chief pace of a cover hack should be the canter, and his temper should not be overlooked, for if fractious, and a puller, he will add much to the fatigue of a severe day's sport. A horse of this description, nearly fifteen hands high, young and sound, will command from sixty to a hundred pounds. The other points essential to a good road hackney, which will be noticed hereafter, apply equally to the cover hack.

The Park Hack of the present day is the race-horse in miniature. To be quite *à la mode*, he should be thorough-bred, with a very neat head, beautifully set on, and a switch tail; and so well bitted as to be ridden with a slack rein. He should have much liberty in his walk, which, and the canter, should be his chief paces. He must have great obliquity of shoulder, with a corresponding true formation of hinder quarters, and above all, the well-bent hinder legs; in which case, if the position of his fore-legs enable him to put his feet down properly, which will be explained in describing the general action of the hackney, he will be, if good tempered, and not given to fret, the perfect park hack.

The Lady's Horse is, after all, the most difficult to obtain, because he ought to approach very near to perfection. His paces, mouth, and temper, should each be proportioned to the power and capability of his rider; and he should be proof against alarm from either noises or sights, which otherwise might cause him to run away. This description of horse should likewise be well bred, as in that case his action will be easier, and his appearance and carriage more in character with the generally elegant appearance of his rider. His pace should be the canter; the trot causes an ungraceful movement in the person of a woman, to enable her to rise to it; and if she do not rise to it, she is much shaken in her seat. Neither is the form of the side-saddle fitted for the trot; and the canter of a well-bitted horse is more safe, because his haunches are more under him in that pace than they can be in the trot. A good, bold, walk, however, with the head in proper place, is essential to a horse that has to carry a woman; and his action should be very true, that is, he should not "dist," or throw his legs outward, as the term is, in any of his paces, or he will cover the lower garments of his rider with mud when the roads are wet and dirty. To provide against the latter inconvenience, however, all horses intended for this purpose, should not be much under fifteen hands and a half in height, which size corresponds with the lengthened drapery of a lady's riding costume. As a preventive against accidents, ladies' horses, however well broken and bitted, should not be too highly fed; and, if at all above themselves, should be ridden by a careful servant, with good use of his hands,

Hackney. before ladies mount them. It is, however, an acknowledged fact, that horses go more quietly under women than they do under men, which is accounted for by the lightness of their hand, and the backward position of the body, in the saddle. We have, in fact, known several instances of horses being very hard pullers with men, standing up in their stirrups, and, consequently, inclining their bodies forward, but going perfectly temperate and at their ease under women.

The power and parts conducive to action in the roadster, or hackney, are derived much from the same shape and make as we have shewn to be best fitted for the hunter; but it is desirable that he should be more up in his forehead than the hunter is required to be, as such form gives confidence to the rider. *The most dangerous* form he can exhibit, if we may be allowed such a term, is, with his fore-legs standing too much behind the points of his shoulders, and those points loaded. Even with the best-formed hinder legs, the centre of gravity being thrown so far forward beyond the pillars of support, is, in this case, with great difficulty preserved on the horse making a stumble; but with straight hinder legs, a horse so formed in his fore-quarters is only fit for harness, where he can recover himself by the assistance of his collar, having no weight on his back. Provided a hackney do not cut his legs, by striking one against the other, which is oftener caused by imperfection in the upper than the lower extremity of the legs, he is not to be rejected because he may turn out his toes a little, some of the very best, fastest, and safest road-horses being so formed. Cutting the hinder legs is a worse failing than cutting the fore ones, as it is a certain sign of weakness; and although we may be told that shoeing will prevent it, we bring to our recollection the old adage, that "a goose always goes like a goose." What is called the "speedy cut" with the fore-legs, arises from excess of action, and is a great objection, by reason of the wound given to the leg, which is struck just under the knee. Many good hunters, especially when ridden in hilly countries, such as parts of Surrey, where they traverse the hills on loose and stony ground, are subject to this failing, which is remedied by a boot; and, after all, the danger attributed to speedy cut, in throwing horses down, is much overrated.

The size for a road hackney must be regulated by the size of the person to ride him; but, generally speaking, from fourteen hands to fourteen hands and a half, is the proper height. His strength must also be thus calculated, for a light man does not ride pleasantly on a horse equal to double his weight. But a road hackney should have strength of shoulder, with a round barrel, but not a large carcass, which only wears out his legs. His constitution and feeding can only be proved upon trial; but there are certain indices, such as deep ribs, hardy colour, brown muzzle, &c. which very rarely deceive us. As to the necessity of well-placed hinder legs, it is most clearly shewn by the answer given to the following question: If a horse make a serious blunder forward, and the centre of gravity of his body fall beyond the pillars of support, and is for a moment lost, what restores the equilibrium? Is it merely the chuck under the chin to an animal of his bulk and weight, and that "chuck" given perhaps by the weak, powerless wrist of a feeble old man, or delicate young lady? No: the main effect of the bit, or curb, in this case is, first, warning the horse of his danger; and, next, by the momentary raising of his head, he is better able to bring a hinder leg *instantly* to his assistance, by advancing it under his body, and thus restoring the equilibrium. In the walk, in fact, the horse actually begins to move by advancing the hinder-leg under the body, before the fore-leg quits the ground; and if he did not do so, there would be no equal support for the body, during the suspension of the fore-leg in the air; nor could the body be moved forwards, until the hinder leg had, by quitting its station, taken a new point of sup-

port. Seeing then, that in the walk, as in all other paces, *Hackney.* the centre of gravity in the horse is maintained, as well as the body propelled, by the action of the hinder legs, the greatest attention should be paid to the position and action of them in the hackney, as the best safeguard against his falling. We should observe, then, when he is exhibited to our view, that, in his walk, the hinder foot oversteps the fore foot, at least a shoe's length, which a horse with straight, ill-formed hinder legs cannot do; and if such action be accompanied by generally good hind quarters, it is a great indication of safety, as far as one-half of the body of the horse is concerned. But as the false step is made, not with the hinder, but the fore leg, the chief safeguard against falling is to be found elsewhere, namely, first, in the length of the shoulder, which throws the centre of gravity further back than a short one; and, secondly, proceeding also from the free use of the shoulder, in the act of setting the fore-foot down on the ground. It is a general but very mistaken notion, that the safety of a roadster depends upon his lifting his fore-feet high from the ground, when he is said to "go well above his ground;" whereas it all depends on the manner in which he places them down upon it. Not only are the highest goers often the most unsafe to ride, for, when they do fall, they fall with a violence proportioned to the height of their action; but, although we do not advocate such extremes, there are thousands of instances of horses going *very near* to the ground, and never making a trip. It is, however, a well established fact, that if the form of a horse's shoulder, and the position of the fore-leg, enable him to put his foot to the ground *flat*, with the heel well down, his lifting up his foot high is not at all necessary; whereas, on the other hand, if, by an improper position of the leg, issuing out of a short, upright, ill-formed shoulder, the toe touches the ground first, and, as it were, digs into it; no matter how high such a horse may lift up his leg, in any of his paces, he will always be dangerous to ride. And this will be clearly shewn, if we consider the position of the fore-leg, when off the ground, or in action. It is bent in the form of a *C*, and the foot suspended in the air, turning inwards, with a curve towards the body. When in this state, were the foot to come in contact with a stone, or any other substance, it would pass over it without resistance, the limb being at that time in a flaccid state; but when it approaches the ground, the limb being extended, and having the whole weight of the fore-quarters about to be thrown upon it, if it strike against a stone, or any hard substance, then the case is greatly altered, and a stumble is the inevitable consequence. The base now requires to be firm and even, which it can only be by the foot being placed flat upon the ground. Man, in fact, walks very near the ground, but his toe rarely strikes it. If it did so frequently, he would soon become a cripple, putting falling out of the question. His action proceeds from his hips; that of the horse, as regards the fore-legs, from his shoulders; but the principle is the same with each; each is a piece of curiously-wrought mechanism, and according to the correctness of that mechanism is their action true. A wrong notion, however, prevails here, which may lead the purchaser of a hackney astray. It has been asserted by various writers, that, if the shoe of a roadster be found worn at the toe, it is a sure sign of his possessing the dangerous action to which we have alluded. This is false; many horses wear at the toe, solely by the act of picking up the foot, and quite independently of placing it down. That many hackneys, however, fall from their shoes being neglected and suffered to wear too much at the toes, we are well aware, as well as from their pressing upon the heels and quarters, from the want of being removed in proper time. When a horse is given to wear at the toe, the wearing part should be steeled. The best method of ascertaining the manner of putting

Hackney. down the foot, on which we have shewn the safety of a hackney depends, is, to ride a horse with a slack rein, on a foot-path, on which there are trifling undulations, scarcely perceptible, but sufficient for our purpose. If he walk smoothly over such ground, and do not strike it with his toe, we may be sure he puts his foot properly down, and will not, from that cause, be a tumble-down. But there are various ways in which horses fall on the road; bad shoeing, as we have already said, being one of them, and bad condition another. What is called a false step, very different from a stumble, may occur to any horse, and is occasioned by his accidentally putting his foot on a loose stone, that rolls away from under it, when, of course, his footing is lost. In this case, his chance of recovering himself is in his shoulders being oblique and lengthy (for upright shoulders are always short) and well placed hinder legs. Thrushes and corns are likewise the cause of stumbling; as likewise is starting, one of the worst failings a hackney can have. In some horses it is a nervous affection, rather difficult to account for in animals of such strength of frame; and often arises from imperfectly formed eyes, such as flatness of the cornea, or outward surface of the eye, generally a small one, causing short-sightedness. In the latter case, this fault in a hackney may be guarded against, by employing a veterinary surgeon to inspect him previous to purchase.

The old adage of "No foot, no horse," applies particularly to the road-horse. The hunter can cross a country upon feet that are very far from good; and by the help of bar-shoes, the coach-horse, with no weight on his back, and with the support the harness gives him, gets pretty comfortably over his stage on unsound feet; but the road-horse must have sound feet. Previously to the use of horse-shoes, the value of a solid hoof was so great as to have been made the image by which the Prophet Isaiah set forth the strength and excellence of the Babylonish cavalry, "whose hoofs," says he, "shall be counted as flints." Both Homer and Virgil mention it as an indispensable requisite in a good horse, the latter making it to resound as it strikes the ground,

" ——— et solido graviter sonat ungula cornu."

We are not going here to enter on a long discussion upon the foot, but only to observe, that the wide hoof and expanded heel of the hunter is not so essential to the road-horse as many persons suppose. Indeed the hoof that has been found to stand *severe* road-work best, is one rather high at the heel, and not very wide, provided the pastern above do not approach too near the perpendicular; forming what is called "an upright pastern," which, by the jar the foot receives from it, when it comes to the ground, is nearly certain to produce disease. The strong foot, however, of which we are speaking, is one that requires care, by being frequently drawn out with the knife, to prevent its becoming too strong; and by giving moderate pressure to the frogs, to prevent the heels getting nearer together than we find them, and they already approximate to contraction in a foot of this description. The just form of the hoof in front, upon which mainly depends its form behind, is said by Clarke to be at an elevation from the ground of thirty-three degrees,¹ and we are inclined to think, that a much greater elevation than this would approach too near the perpendicular, for any kind of foot. As the inner heel or quarter has more weight thrown upon it than the outer, it is the principal seat of corns and sandcracks, for which reason great care should be taken that an even bearing to the whole of the crust be given by the smith to the foot of the hackney, previously to his setting on the shoe, the inner

heel being given to wear away more than the outer on that Hackney.

In the action of the hackney consists his chief merit. It should be smooth, and with not too long a step, or stride, or he will tire. He should also go straight on his legs, as the term is; for although horses that dish their legs may be, and commonly are, safe goers, yet they are disagreeable to ride in wet roads, as they cover the rider with mud. As we have already observed, the action of a hackney should not be high, as that tends to fatigue the rider and destroy himself; and if he puts his foot well down on the ground, he will never fall by reason of his action being low, and he will last the longer for its being low.

The paces of the hackney are in a great measure dependent on the will of his owner. The walk and the canter are most essential to what may be called the pleasure hackney; but for general purposes, the trot is the most useful and available pace in a roadster, and one in which he will continue longer, according to the rate he is going at, than in the canter. There are instances, however, and here is perfection in a hackney, of horses with very oblique shoulders, and excellent hinder legs, being able to carry their riders in a canter, over every variation of road, downhill, as well as uphill, without offering to break into a trot, for a great distance of ground; and, although not *appearing* to go more than at the rate of nine miles in the hour, are really going twelve. This is the result of the perfection of the points to which we have alluded, and can never be looked for in horses of a contrary make, whose shoulders are short and stiff, and their hinder legs straight. Above all things, what is called "fighting action" in a hackney should be avoided; neither ought the fore leg to be thrown out with a dart, as it is always attended with a dwelling, or temporary suspension of the foot, previously to its reaching the ground.

Most horses have some peculiarities about them, if not absolute "tricks," as vicious practices in horses are designated. Starting has already been noticed; but plunging is still more dangerous, as in that case, a horse seldom stops until he have unseated his rider, at least made many attempts to do so, or thrown himself upon the ground. This latter trick often proceeds, not from sheer vice, but from a sense of pain in the horse, from being too tightly girthed; or from the, to him, very unpleasant sensation of a cold saddle, with a weight upon it, being pressed to his back; and having once taken a dislike to it, he is very apt to continue it. Against each of these evils, it is in our power to provide. Against the first, by not girthing the horse tightly, for the doing of which there is no good reason; and against the second, by having the saddle put on an hour before the horse is wanted, in which time it will become warm, and not disagreeable to the skin of his back, which, in some horses, we know to be extremely susceptible. It is upon this principle that the collars are left day and night upon such road coach-horses as are given to "jib" at starting, the consequence of tender shoulders. But there is one failing to which hackneys are subject, not proceeding from vice, but still attended with danger, as it is often the cause of their falling; and we will endeavour to exhibit this failing. We need scarcely insist upon a good mouth, with neck and head in good place, in the best description of road-horse; nevertheless, if he will not suffer his rider to avail himself of those advantages, they are useless to him. Such, however, is the case when a hackney, as he is going along in his fast paces, throws his head backwards, which he has always the power to do, his rider being unable to prevent him. Twofold danger attends this fault. First, when in the act of doing it, he sees not where he places his feet;

¹ White says forty-five.

Hackney. secondly, his rider loses his mouth for the moment, and in that moment he may fall. Independently of this, it gives the rider the idea that the horse is becoming fatigued, and doubtless it is an indication to that effect. Our idea, then, of a *perfect hackney* to carry a gentleman, is this: A well-bred, short-legged, lengthy horse, with *very good legs and feet*, not under fourteen nor above fifteen hands high, that will walk four miles in the hour, trot eleven or twelve, and, if wanted, will go fifteen in that time in a canter or hand-gallop, *without once throwing up his head*, or requiring to be pulled up. We are, of course, supposing him to be in good condition, and in strong work, or it would not be fair to exact so much from him. But it is only in cases of necessity that any horse should be made to perform the latter task; for we are averse to trespassing unnecessarily upon the powers and capabilities of so noble an animal. On the contrary, we recommend every indulgence that can be granted to him on a journey, and especially in hot weather. At all times, indeed, it is our interest to do so; but, in very hot weather, a few sips of soft water, often given, keep off fever, and replenish the loss he sustains by exhaustion from excessive perspiration.

One word more respecting action. We are no advocates for *very fast trotting*. It forces the animal to the very extent of his powers, which, of course, wears him out; it induces his owner either to be constantly displaying these powers in private, or matching him against time in public. Add to this, fast trotting is not a gentlemanlike pace; that is, it has not a gentlemanlike appearance, neither is it agreeable to the rider. This is apparent at first sight, when we follow two horsemen on a road, one on a fast trotter, and the other on a good canterer; although going at the same rate, the cantering horse and his rider are both much more at their ease. With the ancient Romans, indeed, a trotting horse was called a tormentor. Nevertheless, we admit that fast trotting is a proof of action, in excess, but of a peculiar nature, and is, perhaps more than any other, transmitted from sire to son, as the produce of the various Norfolk and American trotters have shewn. The amble is a pace very little known in England, although very general on the Continent, where the act of rising in the stirrups by the horseman, in the trot, is not practised. We wonder, however, that horses are not oftener broken to this pace than they are, for the use of women, or of men unequal to fatigue. Although the amble is not allowed to be a pace in the manège, the walk, trot, and gallop being all, it is said to be the first pace of the horse when a foal, but when he has strength to trot, he quits it. Another peculiarity attends it. A horse, we know, can be put from a trot to a gallop without stopping, but he cannot be forced from an amble to a gallop without a halt.

The Pack-Horse. This description of horse is not now in use. His capabilities were prodigious in carrying weight, but were abused by being trespassed upon. When crossed with the heavy cart-horse, a most useful breed for draught was produced, as also what was called the farmer's hackney, that is, a sturdy animal between the cart-horse and the hackney, useful for all purposes of agriculture, as well as for carrying his owner, and always ready to give help, upon a pinch, either in the plough, the harrow, or the harvest-cart.

The Cob. The word cob is one of new mintage in the sporting world, signifying a powerful, short-legged horse, about fourteen hands high, without any pretensions to blood, but able to carry a great weight, at a certain pace, on the road. He is generally the produce of a light, active cart-mare, and either a thorough-bred or half-bred stallion; and, failing to grow in height, often increases in lateral growth to substance equal to that of the old pack, or miller's horse, of former days. When gifted with action, combined with good

shape and appearance, this description of horse is much sought after in London, as also in the country, and often sells for a hundred pounds, to carry heavy elderly gentlemen. The attempt to breed him, however, is a hazardous one, as in case of fault in his action for the saddle, he is not suitable to the coach-horse market, the present rate of travelling requiring more lofty as well as higher bred cattle.

The term *Galloway* now applies to any horse not exceeding fourteen hands in height, although it originated with a breed peculiar to a province of Scotland known by that name. In the early days of English racing, there were several capital thorough-bred galloways in training, at the head of which was the Bald Galloway, sire of Cartouch, and also of the Carlisle Gelding, who, as the Stud-Book informs us, "was remarkable for having supported the fatigue of running as a trial horse in private, and with success in public, till the age of eighteen, at which period, after winning a heat at Sawtry, in Huntingdonshire (1731), he broke his leg, and died." The celebrated Mixbury Galloway, of the middle of last century, was only thirteen hands two inches in height.

Previously to the improved system of coaching, and the cheapness and expedition of that mode of travelling, the well-bred galloway was the favourite hackney of jockies, graziers, horse dealers, and cattle jobbers, and in fact of all light weights who had occasion to travel long distances on the road, in a short space of time; and no description of horse is better adapted to the purpose. Some years since, there was a little entire horse in Devonshire, called Katterfelto, the sire of many most extraordinary galloways, to whose labours on the road, indeed, there appeared scarcely to be any limit.

The Pony. A horse is called a pony when under the height of thirteen hands, four inches to the hand. It is difficult to account for this diminutive breed, unless we believe it to have been imported from countries farther north than Great Britain, which appears probable from the fact of ponies being found in greater abundance in Scotland and Wales than in any other part of the island; the effect, no doubt, of climate. In Ireland they are very rare.

There is no animal that improves in form and character so much as the pony does from the effect of good grooming and high keep. A real Welsh mountain pony, in very good condition, especially if not castrated, is a perfect war-horse in miniature, uniting almost every good property his species possesses. As a proof of one essential quality, we can state upon authority, that the Earl of Oxford had a mare pony, got by the Clive Arabian, her dam by the same horse, out of a Welsh mare pony, which could beat any of his racers four miles at a feather weight. Whether Welsh, Scotch, or Hampshire (New Forest), ponies have properties belonging to them, which should attract the notice of the hippopathologist, among the most prominent of which are the following: They are never lame in the feet, or become roasters. A broken winded pony is a very rare sight, and they live to the extreme of old age, if not unfairly treated. They are also very little susceptible of disease, in comparison with other horses; and as for their powers of endurance, they stagger belief. A rare instance of the latter excellence may be produced, from the well-known fact of the pony, Sir Teddy, only twelve hands high, accompanying the royal mail from London to Exeter, and arriving in that city fifty-nine minutes before it, distance 172 miles, in twenty-three hours and twenty minutes. It may scarcely be necessary to state that he carried no weight, being led between two horses all the way; nevertheless it was a task that we think no full-grown horse would have performed. A correct likeness of this pony was painted by the elder Marshall, of Newmarket. In 1784, a Shetland pony, eleven hands and a half high, car-

Charger. ried a rider weighing five stones from Norwich to Yarmouth, and back, forty-four miles, in three hours and forty-five minutes. As a proof, also, of their powers in crossing a country, the fact may be stated of the late Sir Charles Turner riding a pony ten miles in forty-seven minutes, and taking thirty leaps in his course, for a wager of 1000 guineas with the late Duke of Queensberry, then Earl March. During the drawing of the Irish lottery, the expresses from Holyhead to London were chiefly conveyed by ponies, at the rate of nearly twenty miles in the hour.

The only bad use to which the pony is applied, is in what is called the "pony chaise," or phaeton. The carriage itself is dangerous, by reason of its extreme lightness and shortness, by which it is so easily overturned; and the lowness of the driver's seat prevents proper command over the animal drawing it. It is too often the case, also, that "the pony" is a pet, and for that reason pampered in the stable, and not much worked. On the least alarm, then, such as any unusual noise, horses galloping past him, or, as there have been too many fatal instances, some part of the fore-carriage touching his hocks in descending a hill, away he goes, galloping and kicking until he has rid himself of his load. The safest way of using ponies in harness, is in pairs, in double harness, with the pole of the carriage raised a little at the futchels, to prevent their kicking over it in their play.

THE CHARGER.

No kind of horse, no animal, indeed, of any sort, makes so prominent a figure in history, sacred or profane, as "the goodly horse of the battle," or war-horse. The description of him by Job is admitted to exceed the powers of human eloquence; "and," as M. Rollin says of it, "every word would bear an explication to display its merits." The *Guardian* (No. 86) has a very ingenious critique upon it; and Bochart devotes seventeen pages to this, and all the other passages in Scripture in which the horse is mentioned. Virgil's representation of him, in his third Georgic, is considered as the nearest approach to that of the sacred writer; and the speech, in the tenth *Æneid*, of the hero Mezentius to his favourite charger, when on the point of sallying forth to avenge the death of his son, is not exceeded, in the pathetic, by any other passage in the poem. Homer is blamed for his too frequent allusions to the horse; but the history of all wars produces materials for panegyrics on this noble animal. The far-famed Bucephalus is said to have preserved the life of Alexander, by carrying him out of reach of the enemy, although he had received his mortal wound, and dropped down dead immediately on his (Alexander's) alighting from his back. In the battle which was to decide the fate of Persia, on the ground upon which the great Nineveh once stood, the merit of the victory was chiefly ascribed, by the Byzantine historians, not to the military conduct, but to the personal valour of their favourite hero, in which his horse bore his share. "On this memorable day," says the eloquent Gibbon, "Heraclius, on his horse Phallas, surpassed the bravest of his warriors. His lip was pierced with a spear, the steed was wounded in the thigh, but he carried his master safe and victorious through the triple phalanx of the barbarians." How many British soldiers have owed the preservation of their lives to the courage and docility of their horses.

The movement of turning being the most difficult with the horse, by reason of the inflexible nature of his backbone, the one selected for a charger should have great freedom of action, having his hinder legs well bent under his body, so that he may be easily thrown upon his haunches; also much liberty in his shoulders, and pliancy in the muscles of the neck; in which case he will seldom fail in

having the proper requisites for his calling. The position of his hinder legs, however, is most particularly insisted upon, because, should they be straight, that is, not inclining inwards from the hock, after the form of the ostrich's leg, he will with great difficulty be made the supple, short-turning, handy animal that he ought to be, to render him perfectly available to his rider, at the head of his regiment, or in the ranks. Perhaps those horses which were destined to mount our ancient nobility, or courteous knights of old, for feats of chivalry, and gained them the palm in that field of romantic honour, were more highly "dressed", as the term is, in the manège, than an officer's charger of these days should be; nevertheless, as Colonel Peters observes, in his *Treatise on Equitation* (London, 1835), "Although it might spoil a good horse for military purposes, to form him perfectly after the higher manège principles, yet he would be equally unfit for that duty, if he were left in a raw and ignorant state."

Amongst the ancient Greeks, all horses, as well as all men, were strictly examined before they were admitted into the cavalry; and the precedent cannot be too closely followed. It is well known, that in the various campaigns of the last war, several British officers lost their lives, in consequence of being mounted on chargers not equal to their weight over every description of ground. In one particular instance, a colonel of a light dragoon regiment was cut down in retreating, by reason of his handsome, but powerless charger, being unable to gallop with him over a deeply-ploughed field. At the battle of Waterloo, the ground became excessively wet and soft, owing to continued rain; and, in consequence of it, the Duke of Wellington gave a large price to an officer on his staff for a fine, powerful mare, which had been purchased out of an English fox-hunting stud. In fact, the sort of horse best fitted for an officer's charger, is one which possesses most of the essential qualifications, as well as accomplishments, of a hunter, as his rider, when on service, knows not how soon they may be called for. He should, however, be of airy form, with light action, and well-bred, or he will not look in character with the smart costume of his rider; but to his appearance there must not be sacrificed those essential points, substance and strength, which will enable him to struggle through difficulties, in which a weaker, though more highly-bred, animal might sink. But a trifling deviation in form in the charger, from the points insisted upon in the hunter, may be admitted. For example, the shortness of leg, that is, in the cannon or shank bone, is not exactly desirable in the charger, as his action is required to be of a grander and more showy appearance than we wish to see in the hunter. A moderate length of leg, then, is favourable to such action, and gives lightness, as well as gracefulness, to his movements.

We cannot imagine any brute animal more likely to insure the gratitude of man, than the horse which has borne him in safety throughout even a single campaign; and it is not to be wondered at its having been made a subject for rebuke to Cato, that he left his charger in Spain, to avoid the expense of bringing him home; or that it should be recorded in praise of Andromache, that she fed the horses of Hector with her own hand. A case parallel with the first, we would not produce if we could; but without having recourse to history beyond the period of our own time, we may set forth a flattering resemblance to the second. The late Duchess of Wellington, during her Grace's residence at Strathfieldsaye, in Hampshire, seldom omitted, for a day, feeding, with her own hands, the favourite charger of her gallant husband.

The height of a charger should not exceed fifteen hands and a half, horses of that size being more easily set upon their haunches, and also made to turn more readily than taller ones. His colour must depend upon circumstances;

Coach-Horse.

but next to the silver gray, which best displays his trappings, and which, we may presume, was the colour of the celebrated Phallas (the Greeks called a gray horse *phallos*), bay, black, and chestnut, are the best.

THE TROOP-HORSE.

A change for the worse has taken place in this description of horse, in several British light dragoon regiments, the effect of which was apparent in the late war. It originated in a wish to imitate the style and character of the Hussar, without taking into consideration the fact, that that description of cavalry was intended more for out-parties and skirmishing, than for coming in contact with the body of an enemy; and that consequently, the slender sort of horse on which the English light dragoon has of late been mounted, has not been found efficient, under the immense weight he carries when in marching order, or even in battle, which averages at least sixteen stones. The heavy dragoon horse is, indeed, very little more powerful now than that of the light dragoon was, thirty or forty years back.

The horse best calculated for a light dragoon trooper, is something between the modern coach-horse and the hackney; upon short legs, with good bone, and with much substance in the body. His back should be short, and well ribbed up, his barrel round and large, to allow plenty of room for food, as he is often a long time without it; and hardness of constitution is a very material point in a soldier's horse. When we look at dragoon regiments, however, the heavy horse regiments, in particular, our surprise is excited at the fine appearance the horses make, contrasting it with the price allowed by government for the purchase of them. It is true they are purchased when young, many of those for the household troops, at three years old; and their good keep, upon hard food of the best quality, forces them into shape, and makes them what we see them.

THE COACH-HORSE.

If it cannot be absolutely asserted that the first use of the horse was in harness, it is quite certain that the chariot-horse was held in high estimation in very early times, and is alluded to by poets and historians of all nations and in all languages. Homer says that Diomed, an Asiatic prince, had ten chariots, with a particular sort of horses for each; and he also makes Nestor, at the funeral games of Patroclus, harness the horses for his son with his own hands; and, by his skill in directing him in the race, he wins it. But the Grecian bard goes still further into minutiae. He even represents Menelaus, on the same occasion, using *Æthe*, one of the horses of Agamemnon, with one of his own; and Priam is found harnessing his favourite steeds to the car, in which he returns, with the dead body of his father, from Achilles's camp, on the plains of Troy. It would be endless to turn to other writers, to shew the estimation in which the chariot-horse has been held.

In its present acceptation, the term "coach-horse" includes two varieties; namely, the horse that draws the gentleman's carriage, and the one that is employed in those public conveyances, called "stage-coaches." As regards the former animals, we believe a similar alteration has taken place in the form, appearance, and breeding of them, as has been seen in the English hunter, within the last half century. The Flanders mares, so highly esteemed, and seen only in the carriages of families of distinction; the well buckled-up, long-tailed blacks and roans, have all disappeared, and we find, in their stead, the sort of horse nearly approaching to the one which was formerly considered quite well-bred enough for the chase. But the fact is, such is the

Coach-Horse.

present rage for rapid travelling, both in private and public carriages, that nothing but well-bred horses have a chance to stand what is called harness-work on our roads. Those used also for "town-work," as the term is, are of a superior description, amongst which hundreds of good hunters might be selected; but such have been the high prices given for them by the dealers, at an age which would not admit of their being tried in the field, they have found their way into harness, and, when once there, they remain in it.

The form, however, of what may be termed a splendid town coach-horse, need not be, by any means, perfect; and were a judge to examine minutely the points of vast numbers of those handsome horses seen in the carriages in London, or other large towns, he would find them very deficient in several points, essential to any purpose but harness, shoulders and hinder legs especially. But it is fortunate for breeders of horses, that it does not require true symmetry and action to form a grand coach-horse. His false points are, for the most part, concealed by his trappings; and if he be any thing near the following form, he will make an excellent appearance in harness. His head is not so material, as the bridle covers so much of it; but his neck should rise well out of his shoulders, as the higher he carries his head the better, provided the form of his neck admits of its being drawn inward by the bearing rein, when only moderately tight, in which case he will be easily acted upon by the driving rein. The back of the coach-horse is a material point, as, without an easy slope behind the withers, his fore-hand will not appear grand, nor will the pad sit well upon him. His hinder quarters should be straight and blood-like; his gaskins well spread; and his tail should be set on, high. His action should not be too short for town-work, but the knee should be thrown well up in the trot, to give him a grand appearance. This peculiar action, the result of strong flexor tendons, suited nearly to this purpose only, is observable in colthood, but is increased afterwards by the horse being thrown more upon his haunches by the bit; and the act of drawing is not unfavourable to it. Light work in harness, indeed, is favourable to all action, that of galloping excepted.

The county of York may be called the modern Epirus, as in that and Lincolnshire are the greater part of the London coach-horses bred. The most usual cross is between the thorough-bred horse and the Cleveland-bay mare; but the appearance of too many of them incline us to believe, that, losing sight of their own interest, breeders have recourse, oftener than they should, to the half-bred horse, as well as to the half-bred mare. This, added to the rich grass land they are bred upon, accounts for the coarse, ill-placed shoulders and flat, fleshy feet that so many of the London coach-horses exhibit. For road-work, in noblemen and gentlemen's carriages, horses cannot be too nearly full blood, provided they have strength equal to their work. Here, as over a country, "it is the pace that kills;" and as, in considerable velocity, the power of a horse is nearly exhausted in moving his own body, he needs every advantage we can give him.

The colour of the gentleman's coach-horse is, for the most part, bay; but by far the most imposing in harness is the silver-gray, with black mane and tail. This colour was held sacred by the ancients; and Camillus is said to have given great offence to the Romans by being drawn through Rome, in his triumph, by four gray horses, no general having before ventured to do so. Gray coach-horses, however, require the nicest grooming, and the best appointed harness, otherwise all the good effect is lost. The piebald look conspicuous, and commands a high price, as no doubt he always did. Virgil was partial to the piebald, or party-coloured breed, and mounts young Priam upon one of them in the fifth, and Turrus in the ninth, *Æneid*, both Thracian horses.

Coach-Horse.

The stage coach-horse has undergone a still greater change in the last half century, and particularly the last twenty years. In fact, his physical condition may now be said to be better than that of the man who lives by the sweat of his brow, for he works but one hour in twenty-four, whereas the man works twelve. The coach-horse also lives on the best fare, which cannot be said of the labouring man. As all kinds of horses of a light description find their way into coaches, it is useless to attempt to fix a standard by which they should be measured, as to height, length, width, or strength. But as all horses draw by their weight, and not by the force of their muscles, which could not act against a load for any length of time, the object of the breeder or purchaser of the road coach-horse should be, to have as much power in as small a compass as may be possible, combined with good action. Substance is a *sine qua non* on roads that are heavy or hilly; for, as before observed, it is the weight of the animal which produces the draught, whilst the play and force of its muscles serve to continue it.

There are, however, a few points very necessary to be observed in the purchase of the road coach-horse. As in drawing, the force applied proceeds from the fulcrum formed by the hinder feet, well spread gaskins and thighs form a main excellence. His fore-legs also should be good to make him a safe wheel-horse, nor can he throw his whole weight into his collar, unless he be sound in his feet. But alas, how many are thus deprived of their natural powers, by being worked upon unsound feet, and expected to exert themselves to the utmost.

There is no truth so easily proved, or so painfully felt by the post-master, at least in his pocket, as that, *it is the pace that kills*. A horse at a dead pull, or at the beginning of his pull, is enabled, by the force of his muscles, to throw a certain weight into the collar. If he walk four miles in the hour, some part of that muscular energy must be expended in the act of walking; and, consequently, the power of drawing must be proportionally diminished. If he trot eight miles in the hour, more animal power is expended in the trot, and less remains for the draught; but the draught continues the same, and, to enable him to accomplish his work, he must tax his energies to a degree that is cruel in itself, and that must speedily wear him out.

Let it be supposed, what every horse cannot accomplish, that he shall be able, by fair exertion and without distress, to throw, at a dead pull, a weight into his collar, or exert a force equal to 216 lb.; or, in other words, let him be able to draw a load which requires a force of 216 lb. to move. Let him next walk at the rate of four miles in an hour; what force will he then be able to employ? We have taken away some to assist him in walking, and we have left him only 96 lb., being not half of that which he could exert when he began his pull. He shall quicken his pace to six miles an hour, more energy must be exerted to carry him over this additional ground. How much has he remaining to apply to the weight behind him? 54 lb. only. We will make the six miles an hour ten; for it seems now to be the fashion for the fast coach, and for almost every coach, and every vehicle, to attempt this pace. How stands the account with the poor beast? We have left him a power equal to 32 lb. only to be employed for the purpose of draught.

The load which a horse can draw is about fifteen times greater than the power exerted, supposing the road to be hard and level, and the carriage to run with little friction; and the horse which, at starting, can throw into the collar a weight or force equal to 216 lb., will draw a load of 3200. Let him, however, be urged on at the rate of ten miles in the hour; deduct the power used in swiftness of pace from the sum-total of that which he possesses, and what remains? not a sixth part, not that which is equal to a

quarter of a ton, or, if it be a stage-coach, the energy exerted in draught by the four horses will not be equal to a ton.

The coach, and its passengers, and its luggage, weigh more than this, and the whole is still drawn on, and must be so. Whence comes the power? from the overstrained exertion, the injury, the torture, the destruction of the horse. That which is true of the coach-horse, is equally true of every other. Let each reader apply it to his own animal, and act as humanity and interest dictate.

It would be in vain to attempt any standard for road coach-horses. They must be picked up where they can be found, and, if possessed of action, the rest must be left to chance. A good constitution is desirable, for many die in the "seasoning," as it is called, on the road, and a young, green horse cuts a poor figure in a fast coach. Coachmasters are too much given to purchase infirm horses, by which they incur loss, for, if quite sound, it is as much as can be expected that they remain so for any moderate length of time; and we believe the average duration of horses in fast work is not more than four years, if purchased sound. Unsound horses, then, cannot be supposed to last nearly so long, independently of the cruelty of driving them. The most likely horse, however, to stand sound, and do his work well in a fast coach, is one, that, with sufficient strength, and a good set of limbs, has action sufficiently speedy to admit of his keeping time without going at the top of his pace. When this is the case, he runs his stage, from end to end, within himself, and is as good at the last as he was at the first; but when he cannot *command* the pace, he soon becomes distressed, and is weak at the end of his stage. This accounts for sundry accidents having occurred by wheel-horses being unable to hold back a loaded coach down hill, at the end of the stage, although they would have been more than equal to it at the beginning of it. In fact, many coach-horses are very good for eight miles, but very bad for ten, so nicely are their powers measured in harness. Above all things, we recommend good legs and feet in working horses, if they are to be had; and an extra price is well laid out in procuring them. Whether they are strong in their harness, in very fast work, cannot be discovered until they are tried; but well bred ones, having substance, are most likely to prove so.

Dr Johnson, in his *Rasselas*, makes the Artist of the Happy Valley tell the prince, he had long been of opinion that, instead of the tardy conveyances of ships and chariots, man might use the swifter migration of wings. There appears something prophetic here, when we read of the contemplated transmission, by all-powerful steam, of a man's person from London to Liverpool in two hours, which would be at a rate that the very "wings of the winds" never yet equalled. But surely our coaches now travel sufficiently fast, and we should be sorry to see their speed increased beyond what it now is, in consideration for the sufferings of the horses employed in them. Were they not always *running home* (for each end of the stage is their home), they would not perform their tasks so well as they now perform them; and it is owing to that circumstance that the accidents in fast coaches are not so numerous as might be expected, night work, and many other things being taken into account.

Coach-horses are subject to many accidents, and some diseases nearly peculiar to themselves. Amongst the former is the fracture of a leg, or the coffin-bone of the foot, occasioned generally, it is supposed, by treading on a stone, or any other uneven surface, when the limb is strained in draught. It, however, sometimes happens when the horse is trotting along on very fair ground, and in such cases the accident is rather difficult to account for. In very heavy draught, when the foot is much overcharged with the weight and pressure of the body, a fracture will sometimes take place at the first step the horse takes. Perhaps

Coach-Horse.

Gig-
Horse.

these accidents may be independent of what is called shape and make, but coach proprietors would do well to purchase their horses with good legs and feet, and then they are less liable to these accidents, and, with good care and good shoeing, may last many years in very quick work.

The diseases peculiar to coach-horses are, the megrims, and the lick. The former attacks the head, and is caused by irregular motion of the fluids within the vessels of the brain, stopping, for a time, all voluntary motion. The horse in consequence staggers and falls, if not immediately pulled up, and that does not always prevent him. This species of vertigo is generally produced by the effect of a hot sun, especially if the horse be running in the face of it, for which reason horses subject to megrims are generally worked at night. In fact, many coach-horses are good horses by night, although they cannot keep their time by day, in the summer, particularly thick-winded horses. Blind horses also do not like sun, but "as healthy as a blind horse in the winter" is a proverb.

The lick can scarcely be called a disease, but it greatly injures the condition and appearance of coach horses. When under its influence, they are almost constantly, when not feeding, licking each other's skins, or else the rack or manger. It proceeds from a heated state of the stomach, from the excitement of high food, and almost daily profuse sweating, and is invariably removed by alterative medicines or physic.

A great mistake is made by too many coach-masters in being *under* instead of *over* horsed for their ground. Instead of keeping five horses to work a certain length of ground, and feeding them very high to perform it, it would answer them better to keep six horses on the same allowance of corn that the five horses are eating. The stock would last longer, and the money they cost be "kept together," as the term is, longer, by such means. Each horse would then rest two days out of six, when they were all fit for work, which would keep him very fresh in condition; and there would always be one spare horse left, in case either of the six wanting physic or rest. It is the almost every-day excitement that breaks down the constitution of coach-horses.

THE GIG-HORSE.

A few years back, a country parson and his wife, or a wealthy old farmer, were the only persons seen in England in two-wheeled carriages, then called Whiskies. They were useful though far from ornamental vehicles, having what is termed "a head" to protect the inmates from weather, and, with a very quiet horse, were considered as nearly equal in security to close four-wheeled carriages. In the character and appellations of these carriages, however, a wonderful alteration has taken place within the last fifty years, and even royalty itself has been seen seated in gigs, cabriolets, Stanhopes, and Tilburies; the two last taking their names from the inventors of their peculiar forms. The build of these two-wheeled carriages has reached the very summit of perfection, not only as regards their firmness but their elegance; and it is scarcely necessary to add, that the horses driven in them, as likewise their harness, have equally altered their character. From two to three hundred guineas (and, in one instance, seven hundred guineas were paid) have been no uncommon prices given for gig and cabriolet horses; and for gentleman's work we might put sixty as the average of the last forty years.

The choice of a gig-horse (for we confine ourselves to that term for the present) must be regulated by local circumstances. If for London streets, his action should be rather lofty or "grand," as the term is, than fast; that is to say, he should step with his knee much elevated, which of course is unfavourable to speed. His appearance also

Post-
Horse.

should be of the first order of his species, not under fifteen hands two inches in height; and if of a fancy colour, the more money will he fetch in the market. He must be well bitted, carrying his head high, and very quick in getting into his trot, or "upon his legs," as coachmen say, to enable his driver to make his way in crowded streets. We should also add, that this quickness in his motions should be accompanied by perfectly good temper, and freedom from all vice; in which case he is always worth one hundred guineas, or more, if in the prime of life and sound.

For the country a different sort of gig-horse is required. In drawing a gig on a soft or newly-gravelled road, the resistance is much the same as a continual hill; and therefore a horse with a quick, short step is best calculated for the road, as such action fatigues less than that which we have recommended for London. For all purposes, however, a horse in single harness, to be safe, should be well up before; that is to say, he should go with his fore quarters high up, and not boring on his shoulders. In this case, if he have well-placed shoulders, good legs, and sound feet, free from corns and thrushes; good natural courage to induce him to "run up to his bit," and a good mouth, there will be very little danger of his falling down in a gig; but accidents from vice must depend upon other circumstances. These accidents, however, are often the result not of real vice, or even of ill temper, but of want of knowledge in his owner of putting him properly into his harness, as well as of driving him afterwards.

Innumerable accidents to horses in gigs arise from some part of the harness pinching him, particularly about his withers or back, when he will endeavour to kick himself out of it, to rid himself of the torment. Indeed we have more than once seen a road coach-horse, in regular work, set a-kicking merely from a twisted trace, rubbing edgeways against the outside of his thigh.

We consider mares objectionable in single harness, for reasons which are obvious; and few of them are to be trusted at certain periods of the year, particularly in the case of a rein getting under the tail. When driven, the precaution of the safety rein should not be omitted. We are also of opinion that numerous accidents from gigs would be prevented, if horses intended for them were to be broken in to them, in bridles without winkers, as a great portion of the horses on the Continent are driven. The not knowing what they have behind them is a natural cause of alarm, and would by this means be obviated.

THE POST-HORSE.

This description of horse is one of the most useful we have, and is of very ancient date. He is spoken of by Xenophon, in allusion to the posts instituted by the first Cyrus, and as the most expeditious method of travelling by land (*Cyropædia*, l. viii. p. 496, edit. Hutchinson); although, perhaps, he was chiefly made use of to forward public despatches. Augustus was the first to introduce post-houses, and consequently post-horses and post-chaises, amongst the Romans, disposed at convenient distances (Suet. *in vit. Aug.* vi. 49), but these were chiefly for the purpose of political intelligence. Thus, in a letter from Pliny to Trajan, we find him informing the emperor of his having granted a courier a warrant to make use of the public posts, as he wished him to be quickly in possession of some important facts, communicated to him by the King of Sardinia; and he subsequently (Letter cxxi.) apologizes to his royal master for having ventured, on his own responsibility, to grant an order for his wife to be forwarded by post-chaises, on occasion of a domestic affliction. His letter produced a kind answer from the emperor, approving, *in this peculiar instance*, of the use of the warrants which he had entrusted to his care.

Cart-
Horse.

A most material and agreeable change has taken place in the character and appearance of this class of horse, who may truly be said to have marched with the times. Up to the end of the last century the post-horse was, except in a few instances, an object of commiseration with travellers. With galled sides and sore shoulders, and scarcely a sound limb, he would not go without the lash or spur, whereas he now comes out of his stable in high condition, and runs his ten miles' stage in an hour, with a carriage of the average weight, and twelve, if required, with a light one. He is also seen to perform either of these tasks without being distressed, unless in immoderately hot weather, when humane persons would check his speed. Montaigne says, "there is a certain general claim of kindness and benevolence which every creature has a right to from man," a sentiment in which we heartily concur; for although man may be considered as the delegate of Heaven over inferior animals, he has no right to go to the very extremity of his authority. It is, however, much to be feared, that a thoughtless indifference to the sufferings of the post-horse is too frequently to be laid to travellers in our own country, who, without any sufficient reason, urge him to a rate of speed which cannot be unattended with suffering.

The form of the post-horse should resemble that of the hunter which is generally ridden in the deep and close hunting countries of Great Britain; that is, with as much blood as can be got, in conjunction with good bone and strength. The riding horse of the pair must have sound legs and feet; but if a little the worse for wear, an old hunter makes an excellent hand-horse, and innkeepers generally avail themselves of the saving occasioned by putting horses of a less price in that place than the one which carries the driver. Notwithstanding this, the average purchase money of a useful pair of post-horses cannot be estimated at less than from L. 40 to L. 60.

THE CART-HORSE.

Errors detected by experience are allowed to be equal to demonstration; but this truism is not admitted by a vast majority of English farmers, who persevere in the use of the heavy black horse for agricultural purposes, for which, solely, he is by no means fitted, from the slowness of his step (independently of his weight), unless very highly fed. As long, however, as the ponderous vehicles made use of in London and elsewhere, for the transmission of heavy goods, are persevered in, this equally ponderous animal may be necessary; but it is certain that lighter horses, in lighter vehicles, would do the business better, that is, more speedily, and at less cost. Notwithstanding the objections to him, the heavy black cart-horse pays well for rearing; for being always saleable at two years old, a certain profit is insured, as, for the first year, the expense of keeping him is trifling. If on a large scale, and promising to be fit for the London market, or the best-conducted road waggons, he commands a price that leaves a handsome surplus to the breeder.

The chief desiderata in the cart-horse are substance and action. If possessed of the latter, his shoulders and fore quarters can scarcely be too coarse and heavy; for drawing being an effort of the animal to preserve himself from the tendency which his weight gives him to the centre of gravity when he inclines forward, so the more weighty he is before, and the nearer he approximates this centre, the more advantageously will he apply his powers. Notwithstanding this, we are not advocates of heavy horses for farmer's work, much less on the road. The lighter horse gets over in eight hours what would take the heavy one ten; and the great improvement in the present mode of culture, and the implements used for agricultural purposes,

do not require more weight or strength than what the Suffolk, Clydesdale, Cleveland-bay, and other lighter breeds, are masters of. Besides, there are periods of the year when despatch of business is of great moment to the farmer, which he cannot command in those mountains of horse-flesh which we see labouring in most of the finest districts in England, tiring themselves by their own weight.

Travellers on the Continent, occupying land in England, should carry in their eye the form and action of the horses which draw the public carriages, particularly those bred in Picardy, in France. The prevailing colour is iron roan, and their nature appears to sympathise with that colour; for, speaking figuratively, they are as hard as iron itself. It is not unusual to find four or five of them drawing those cumbrous diligences, weighing perhaps six or seven tons, a twenty-mile stage, at the rate of six miles an hour, preserving up their condition to the highest pitch; and this with hay and corn very inferior in quality to that grown in England. To keep up the condition of the English black cart-horse, requires him to consume nearly as much as his labour is worth; and unless he lives well, he is only half alive, which his sluggish action denotes. In fact, his chief fault lies in his having too great a body, and too little spirit, consequently he exhausts himself in the mere act of carrying that body. The nimbleness of the smaller kinds of cart-horses to which we have alluded, is owing to their moderate size; and their immense powers in lifting weight (with the Suffolk, Punch, and Clydesdale breeds, in particular) to the same cause, combined with the low position of the shoulder, which occasions weight to be acted upon in a just and horizontal direction. The Welsh cart-horses, especially those in use in the counties of Denbigh, Merioneth, and Montgomery, are eminently adapted to all agricultural purposes, combining much strength with a great share of activity; and the general criteria of wide breast, with low shoulders, good carcass, and small head, indicate their being good workers, with hardihood of constitution. Their height is about fifteen hands two inches; and their colour black or brown.

Irish
Horse.

THE IRISH HORSE.

The Irish hackney may be reckoned amongst the indigenous of his country, a *sui generis* animal, not mixed, as the English hackney is, with the black cart-horse, originally brought from Flanders, of which sort Ireland has none. He is remarkable for the general soundness of his feet, which are stronger in the heels than those of English horses, and he stands his work well, if not too much abused in his youth. Almost all Irish horses coming under this description have been broken in to the plough and the car, so they, for the most part, go in harness; but the worst fault they have is not having been properly broken in, and bitted, which is the cause of many of them being restive.

The Irish hunter is a very different animal from what he was half a century back. He was always celebrated for leaping, but until lately the want of breeding rendered him nearly useless as a hunter, in the countries which require speed, as well as the accomplishment of leaping. At the present time great numbers of excellent well-bred Irish hunters are annually imported into England, and being found to answer well, fetch good prices. This is the result of horse-breeders in Ireland seeing the necessity of putting their hunting mares to thorough-bred stallions, and not, as before, to the slow, *great-jumping* hunter, no matter how low his breed. The improved cross, being again put to the thorough-bred stallion, of course has produced a still better kind of animal, and thus are Irish hunters "progressing" towards perfection.

The method of leaping of the native Irish horse is pe-

Scotch
Horse.

culiarly suited to some of our English counties, Cheshire and Lancashire, for example, and likewise to those inclosed with walls both in England and Scotland. To use an expressive Irish phrase, "they have always a leg to spare," implying that they have a ready use of their hinder legs; which is the fact, in tipping or touching walls or banks, with one or both, which gives them a fresh fulcrum, from which they can extend their leap, in case of their finding an unforeseen difficulty or obstacle on the landing side. In the wall counties of Ireland, indeed, the horses are taught to alight on their hinder legs upon the summit of the wall, after the manner of the dog when he leaps a gate, which, if the wall be broad and firm, adds to the facility of the exertion, as also to the safety of the rider. Irish hunters are generally good brook jumpers, being educated, indeed bred, amongst drains; but field gates, or stiles, being of rare occurrence in the pastoral districts of Ireland, they are not to be relied upon as timber leapers, until they have been initiated to that description of fence.

Persons who have had experience in Irish hunters have found them very shy of having a whip, with a thong to it, made use of by the rider, either for the purpose of smacking it, or to strike an unruly hound. This we fear proceeds from unnecessary severity in the exercise of the whip in breaking, but which would be obviated if breeders were aware of the inconvenience it occasions to servants, who are called upon to ride Irish horses with hounds, in the capacity of huntsmen or whippers-in. We have seen a few of these horses nearly useless from this cause, as servants' horses; although well suited in every other respect, to this peculiar purpose, from their style of fencing and hardiness.

The Irish race-horse was formerly far behind the English, neither is it probable that he will ever be his equal, from circumstances unnecessary to detail. Some horses, however, coming under the denomination of good runners, have been imported from Ireland within the last twenty years; for which we are principally indebted to Lords Sligo and Rossmore, and to the late Mr Bowes Daly, who was esteemed the best judge of breeding racers that Ireland ever could boast of. It must, however, be admitted, that horses bred and trained in one country, and running in another, meet their rivals under disadvantageous circumstances.

THE SCOTCH HORSE.

Like all cold countries, Scotland is unfavourable to breeding the race-horse in his best form; and the only prospect of rearing him to any thing approaching perfection, is to shelter him with unusual care from the weather, when either cold or wet, and to force him with the highest keep. Scottish-bred hunters, however, are esteemed in the hunting world as a stout, hardy race, and they, like the Irish, are now well enough bred to live with hounds at the present speedy rate at which those animals run, according to the fashion of the present day. Of the native Highland pony, it is unnecessary to say much, its merits being so well known; and the Scotch cart-horses are decidedly the best in Great Britain. The peculiar variety known as Clydesdale horses, stand first in repute. Of the origin of this race, various accounts have been given, but none of them so clear or so well authenticated, as to merit much notice. They acquired their appellation, not because they are peculiar to Clydesdale, as the same description of horses are bred in the other western counties of Scotland, and over all that tract which lies between the Clyde and the Forth, but because the principal markets at which they are sold, namely, Lanark, Carnwath, Rutherglen, and Glasgow, are situated in that district, where they are also preserved in a state of greater purity than in most other parts. They are rather larger than the Suffolk-punch, and the neck is somewhat longer; their colour is black, brown, or grey; all the essential points for heavy draught are very conspicuously de-

veloped; and they are extremely docile withal, and excellent at what is called a dead pull. Some magnificent specimens of this breed are to be seen in the streets of Glasgow, in the service of the merchants and carriers; and a beautiful plate of an entire one forms one of the illustrations of the article AGRICULTURE in the present Work (Plate XIII.) We have reason to believe, that, if tried by a dynamometer, the Clydesdale horse would exceed any other of his inches and weight in his powers of draught; and his quick step adds much to his value.

Treatment
of Horses.

GENERAL TREATMENT OF HORSES.

Humanity and mercy are esteemed the choicest characteristics of man; and there is hardly a greater instance of ill-nature, or a more certain token of a cruel disposition, than the abuse of dumb animals, especially of those who contribute to our convenience and pleasures. Judge Hale beautifully expresses himself on this subject in his *Contemplations*: "There is a degree of justice," says he, "due from man to the creatures, as from man to man; and an excessive use of the creatures' labour, is an injustice for which he must account. I have therefore always esteemed it a part of my duty to be merciful to my beasts." But we might as well expect mercy from the hyæna, as compassion for the sufferings of horses in the possession of a certain portion of the community, who purchase them when nearly worn out, and work them till nature sinks. We know of no remedy for this; but it is pleasing to reflect, that, in the better classes of society, so noble, generous, and useful an animal as the horse, is now freed from many evils to which he was formerly subjected. The short-docking of the cart-horse, the effect of prejudice and ignorance, it being supposed to add strength to his back, is very generally discontinued, and he is allowed the use of a full tail, the only natural defence against the torment of flies in the summer. Those barbarous operations, nicking the tail, and cropping the ears of pleasure horses, are very seldom had recourse to; neither is firing the limbs nearly so frequent a remedy as it was, veterinary science having substituted other equally efficacious, but less painful means. And, though last, not least, the improved condition, and the effect of better stable management, of all horses employed in fast work, whether on the race-course, in the field, or on the road, has very considerably lessened their sufferings. On this subject we offer the following remarks:—

Condition or Stable Management of the Horse.

Nothing has more largely contributed towards the celebrity of the horses of Great Britain, than the superior management of them in the stable, or what is termed their "condition." Every species of horse has experienced the benefit of it, and we have reason to believe it has attained perfection, under the improved system adapted to each variety of the animal. The training of the race-horse is brought to such a nicety, that his running can be calculated nearly to a certainty by his work, that is, by the number of sweats and gallops he has had before his race; and the stage-coach and post-horse now come forth from their stalls in all the pride of health and spirits, instead of being the pitiable objects they were not fifty years back. Not only the hackney, but the agricultural horse, has partaken of this advantageous addition to natural powers, and which, if not unnecessarily trespassed upon, very considerably diminishes the severity of his daily labour. But the greatest change for the better has been effected in the physical condition of the hunter, who now appears at the cover side in the vigorous state of the race-horse; in a state, in fact, in which he ought to appear, inasmuch as he is called upon to go at a racing pace, and yet, if fairly ridden throughout the chase, he is by this means rendered nearly superior to fatigue. How all this has

Treatment of Horses. been accomplished, we will endeavour to shew; and at the same time to make it apparent, that although Nature never presents us with animals in what we call condition (a state altogether artificial), yet she is ever ready and desirous to meet the demands of Art, when scientifically and judiciously made upon her.

The improvement in training the race-horse has been the result of two distinct causes, each equally likely to produce the desired effect. First, practical experience, an excellent schoolmaster in such matters; and, secondly, both breeders and trainers of this animal now look into books, not only reading them, but reflecting upon what they read. Having been told, on indisputable authority, that the highly rarefied air and arid soil of Arabia produce muscular power and firmly condensed bone in the horse, not to be found elsewhere, and that the antelope, the fleetest animal in the world, is fleetest there than in any other part of the globe, they have naturally been led to the conclusion, that the opposite agents of humid atmosphere and succulent food have a directly opposite effect; that by increasing flesh and humours, they tend in proportion to diminish muscular firmness, solidity of bone, and, consequently, elasticity of action, the main-spring of both speed and endurance; in short, to alter, if not to destroy, all those points which are so peculiarly characteristic of the animal in which they themselves are interested. They have at length found out, that the race-horse should have not an ounce of unnecessary bulk in his frame; on the contrary, that he should have as much power as can possibly be produced in a given space; and that all this can only be effected here by something approaching to the means by which it is effected elsewhere. A knowledge of these facts, then, has produced a substitute for the natural advantages of the horse of the Desert, in warm sheds, very small and dry paddocks, and hard, dry food, for our racing colts, instead of large paddocks, plentifully clothed with grass, often of the coarsest description, imperfectly formed sheds, and not more than half the corn eaten by them at present. As we have already observed, a racing-colt may now be said to be in training, if not from the day on which he is foaled, from that on which he is weaned; for his condition, at least the foundation of it, is from that period in progress. Again, the early period of his going into work, compared with what it formerly was, but now become so general, has not been without its effect. It has called forth additional exercise of the trainer's professional skill; for it may easily be imagined, that, bringing very young horses to the post, in the perfect state of condition, and full development of muscular power, in which we now-a-days see them at every race-meeting in our island, is a very difficult task, and that it is a still more difficult one to preserve them in that state, even for a few days. Both constitution and temper being to be consulted, the very refinement of the art is called for; in fact, the trainer must act upon principle, and very cautiously too, in his efforts to forestal nature. Inasmuch, however, as muscular action produces muscular strength, the racer of the present day, reared as he is reared, and consequently in a more condensed form, does not, with few exceptions, require the very severe work which it was formerly necessary to give him, to increase his muscular powers, as well as to rid him of the bulk of flesh and humours he acquired in his colthood, under the old system of rearing him. A sight of our two-year olds at the starting-post, is the best demonstration of what is here stated. They exhibit a development of muscle in their forced and early maturity almost equal to that of the adult horse, and carry eight stones and upwards, at a racing pace; a weight unheard of upon so young an animal in former times. How far, however, this forced maturity and its consequences, namely, severe work, and the excitement of high keep, at so tender an age, are favourable to him or to his produce in after life, is another question; but the use of a system should never be estimated by the abuse of it. If

Treatment of Horses. our race-horses are not, and we believe they are not, so stout in their running as formerly, that is to say, twenty years back, the cause may fairly be traced to the great value of produce stakes and others, which bring them to the post at so early an age; so much so, that, in the language of the Turf, a four-year-old colt of the present day is called "*the old horse*."

But a still more material alteration for the better has taken place within the last few years in the stable management and condition of the British hunter, arising principally from a different treatment of him in the non-hunting months. It had, from time immemorial, been the usual remark of the sportsman, on his hunters being turned out of their stable in the spring, for the supposed necessary advantage of the "summer's run at grass," that it was to be lamented that the hunting season was concluded, as the condition of his stud was so perfect. The fact was, that until then, or nearly till then, they had not been in condition at all; and, how strange soever it may appear to any one reflecting upon the subject, by the act of turning them to grass for this "summer's run," he was about to undo all that his groom and himself had been doing during the nine preceding months, namely, to destroy the perfect state of condition which he was at that time lamenting over. Still more strange, however, is the fact, that although the evils of this out-of-door system for three months in the year, to an animal who lived the other nine in warm stables and well clothed, were hinted at by Mr Beckford, in his celebrated *Letters upon Hunting*, and abandoned by a few of our first-rate sportsmen of, and subsequent to, his day, and particularly about the commencement of the present century, by the example of the Earl of Sefton, when he was owner of the Quorndon hounds, in Leicestershire, still the ruinous system of the three, and generally four months' run at grass (viz. from 1st of May to the 12th or 20th of August) continued to be practised, until these evils were exposed in all their appalling deformity, and the advantages of an opposite system made manifest, in a series of letters in the *Old Sporting Magazine*, under the signature of "Nimrod," which have since been published in a separate form, and very widely circulated. We may also add, that the effect of this exposure has been nearly a general abandonment of the grazing system in the studs of all men who mean to ride near hounds.

Previously to our enumerating the real advantages of the modern system of "summering the hunter," we will state the imaginary ones of the old one, and which, as may be supposed, are still held to be such, by those who reluctantly acquiesce in any kind of reform. First, the purging by spring grass is insisted upon. Secondly, a relaxation of the muscles, and what is called a letting down of the whole system to its natural state. Thirdly, the benefit the feet receive from the dews of the evening, and coming in contact with the cool earth. Fourthly, the saving of expenses. Fifthly, a kind feeling towards the animal, who, they say, is entitled to his liberty for a certain period of the year, also to the free enjoyment of his natural state. And, lastly, the absolute necessity of rest to the limbs, after the labours of the preceding season. We will now make our own comment on each of these presumed facts.

And, first, we admit there is a laxative, and therefore a cooling, property in early spring grass, but as a purgative it is insufficient, which is admitted by the fact of its having been generally considered necessary to give two dozes of physic to hunters previously to their being turned abroad for the summer (thus administering the antidote, as it were, before the poison), and to physic them immediately when taken up. Here, then, is at once an answer to the first objection to the improved system of in-door treatment in the summer; even supposing that spring grass could not be given to a horse in a loose box, whereas it is evident that it can.

Secondly, the entire letting down of the system, by a

Treatment of Horses. sudden change of food from that which is highly invigorating to that which is only succulent and relaxing, is neither called for, nor can it be wholesome. It is never had recourse to with the race-horse during his period of inactivity, and why should it be with the hunter? We would ask the owner of a horse so treated, how he thinks it would agree with his own constitution and his *digestion*, to be suddenly taken from beef and port-wine to a purely vegetable diet; and the analogy holds good.¹

Thirdly, a great mistake has prevailed on this point, the preservation of the feet. A certain degree of moisture is beneficial to the foot of the horse, a continued exposure to wet most injurious to it, as the certain cause of thrushes, and in time total destruction of the frogs. Thus, history informs us that the horses in Hannibal's army were rendered unserviceable by travelling many days in succession in very wet ground. But we have better authority here than that of Livy, because it applies to horses which wore shoes, whereas Hannibal's wore none. Mr Goodwin senior, late veterinary surgeon to his Majesty George IV., in his work on the Diseases of the Feet (p. 209, 1st edit.), has the following passage, in allusion to the evils of having the feet of horses saturated, as they must be during a summer, with wet at one time, and then suddenly exposed to a hot sun and a drying wind at another. "I have invariably observed," says Mr Goodwin, "where horses are turned out to grass during the dry and hot summer months, that on bringing them up to be put into stable condition, their feet are in a much worse state than they were when they went out, dried up, and so hard and brittle, that, on the application of a tool to bring them into a form to receive a shoe, the horn breaks like a piece of glass, and all the naturally tough and elastic property is lost, so that it requires some months to remove the bad effects. If it is necessary that a horse should be put out of work during the hot and dry weather, I prefer a large box or shed, and soiling with green food; by which means two objects are gained, viz. all the *injurious* effects of a drying wind or a meridian sun on the hoof are avoided, which create such an excessive evaporation of the natural moisture absorbed into the horn from within, that it not only becomes dry, hard, and brittle, but the whole horny box tightens on the sensible parts, and frequently produces great mischief. But in a loose place, moisture may be applied in any desirable way." In addition to the above, Mr Goodwin says, "Horses at grass are much inclined to thrushes;" which renders it unnecessary for us to say more on this subject at present, although we shall by-and-by offer the result of our own experience in the treatment of horses' feet in the summer.

Fourthly, a saving in expense. This is an objection too trifling to be admitted in opposition to any real advantages. It was calculated by Nimrod,² allowing only four shillings per week to have been the charge for each horse, supposing him to have been summered at grass, that the extra expense of his six hunters summered after his system, which we shall further explain, amounted to only L.13, 18s. The mere chance in favour of exemption from acci-

dents to which horses abroad are liable, is worth more than Treatment of Horses. this inconsiderable sum to the man who keeps six hunters of Horses. in his stable; but twice its amount would be realized in the sale of any of the six, if offered at the hammer in November, beyond the sum he would have produced had he been summered solely in the fields.

Fifthly, we would go any length in advocating the extreme of kind treatment to so noble an animal as the horse; but experience has taught us, that neither the open field, nor the shade, is a bed of roses, in the summer months, to the well-bred, and naturally thin-skinned hunter; for the æstrum, or blood-sucker, pursues him in each; and the desperate attempts he often makes to avoid them, shews the horror he has of their attacks. But, unluckily for the advocates of this system, one of the greatest evils of the out-of-door system here stares us in the face. If the horse cannot get away from this host of tormentors, his only remedy against them is, galloping from one end of his pasture to the other, or else stamping with his feet against the hard ground, and often against the roots of trees, to scare them from one part of his body, only to settle upon another. The injury to both feet and legs from a daily succession of these operations, may be left to the imagination of the reader; but against the charge of cruelty, we quote the following remark from *Nimrod's Letters* (p. 268, first edition): "In the very hot weather," (he is speaking of the summer of 1825, which was remarkable for the intensity of its heat), "I made a few observations, which are not irrelevant to my present purpose, particularly as to the charge of cruelty in keeping hunters in the house, in the summer. On the 29th of July, one of the hottest days, the thermometer was one degree higher, at two o'clock at noon, in my two four-stall stables, in each of which three horses had stood for sixteen days and nights, than it was in the entrance-hall of my house, which is twenty-three feet high, and contains three large windows and six doors, and the aspect due east. Now, will any one tell me, that the most tender animal could be injured by breathing such an atmosphere as this? But all is not yet told. I removed the thermometer on the same day, and at the same hour, into the shade, and there it was *four degrees higher than in my two four-stall stables*. Here, then, the objection to horses standing 'sweating in the stables in the summer time,' returns to its real insignificance."

Lastly, upon the subject of rest, and the means of procuring the advantages of it to the hunter by a summer's run in the fields, we cannot do better than quote from the same author. "When discussing the subject," says he, (p. 262), "of summering hunters with a friend, who is an advocate for the grazing system, he made use of the following expression: 'I dare say it may be all very well to keep them in the house in the summer, but then they have not the benefit of *the rest* which they get when at grass.' I could not help smiling at this strange perversion of facts; and ventured to ask him, Whether, if he were examined in natural philosophy, and asked, *what is rest*, he would answer, *motion?* and that would not be a whit less

¹ In No. 59, vol. v. p. 645, of the *Veterinarian*, we find the Editor coinciding with Nimrod on this point, in his second review of his Letters on Condition. "These pithy and valuable extracts," says he, "at the same time that they serve to expose our author's views in regard to summering the hunter, demonstrate a sagacity and experience on the subject, no less worthy of the admiration of the professional man, than of the sportsman himself. The leading consideration in summering the hunter is to maintain his condition, or rather, we should say, to guard against his losing that which we know, both by education as medical men, and experience as sportsmen, once lost, will require much time and pains to be re-acquired. Change of food is necessarily productive, in the animal constitution, of alteration of structure; though parts cannot be said to change their nature under their influence, yet they do become greatly altered both in texture and in tone."

² Two tons five hundred-weights of hay, at L. 4 per ton,.....L.9 0 0
Seventy-one bushels of oats, at 4s. 6d. per bushel,.....14 4 0
Beans,.....1 10 0
L.24 14 0
Six horses at grass nine weeks, at 4s. per week,.....10 16 0
L.13 18 0

Treatment absurd. If rest be desirable, as we know it is, for a hunter's legs, after the labours of a winter, surely he must obtain it more effectually in a small confined place, than when suffered to run over a large tract of land, and to stamp the ground with his feet for so many hours each day." Neither does the labour to the legs end here. All persons who have ridden horses, whose growth has been forced in their bodies, as that of most hunters has been, must have perceived that, when letting them drink in shallow water, their fore-legs totter under them, in the attempt to reach the water with their mouth. Such is the case with the hunter, at least with the properly formed one, when in the act of grazing (for the horse prefers a short bite); and the tremour in his legs shews the stress that is laid upon them, to enable him to reach his food. In fact, many horses (and we could name some well known hunters) cannot reach the ground at all with their mouths, unless it be by the painful position of placing one fore-foot close to their mouth, and the other even with the hinder legs; and consequently their owners have not been able to turn them out, had they been inclined to do so.

It is now our turn to be heard on this important subject to all owners of hunters; and we proceed to state, that the principal objection to summering a horse abroad, consists in the danger we expose him to by the violent change from a stable at the temperature of 63° (the common one of hunting stables), and the addition of warm clothing, to a bed upon the cold ground on a wet night; or, which often happens in the month of May, to the influence of sharp frost; all this, also, when the animal has scarcely any coat on his back to provide against the effects of bad weather; and with a skin highly porous, from long continued friction in the stable. As well might we expect to find animals and plants that can sustain the heat of the torrid, and the cold of the frigid zone, as horses to bear those extremes with impunity! On the contrary, it is the confirmed opinion of most veterinary surgeons, that more hunters have been ruined by becoming roasters, broken-winded, or blind, from this cause, than from any other to which they are subjected; and they are backed in their opinion by reason. For it is not necessary that the newly-turned-out hunter should be exposed to either a wet or a frosty night, to produce disordered functions; the common exhalations from the ground in the evening, are sufficient to produce them, by a sudden constriction of the pores, opened as they have been by the effect of a hot sun during the day. "Heat and cold, moisture and dryness," says Mr Percival, veterinary surgeon to the First Life Guards, and author of the *Anatomy of the Horse*, in his last work on the Horse (p. 64), when treating on the theory of inflammation, "all in their turn become excitants of inflammation; their mischievous agency residing more in the vicissitudes from one state to its opposite, than in any obnoxiousness in our climate, from their excess or continuance. They may operate either directly as excitants, or indirectly, simply as predisposing causes." Few veterinarians, indeed, as Mr Percival expresses himself, now-a-days, feel inclined to deny the uncongeniality of cold and wet, to the constitutions of horses, or to maintain, that they do not very often, in such situations, contract the foundations for disease, which, at some future time, is apt to break out, and prove fatal to them. Nor are the remarks of this scientific practitioner and most perspicuous writer, less to our purpose, when speaking of the horse that is turned out of his stable in the winter. "Take a horse," says he, in his chapter on 'Hide-bound,' (p. 296), "fat and sleek in condition, out of a warm stable, where he has been well clothed and fed, turn him, during the cold and wet of winter into a straw-yard, and go and look at him three months afterwards, and you will hardly recognise your own horse. You will find him with a long, shaggy, staring coat; a belly double the size it was when in condition; and a skin sticking close and fast to his ribs,

which may now be readily counted with the hand, if not Treatment of Horses. But here the analogy between the horse of Horses turned out to grass in the summer, and the horse sent to a straw-yard in the winter, ceases. The latter loses flesh, and becomes hide-bound, both of which will find a remedy in a return to more generous food in the stable, with the assistance of alterative medicine; and he will speedily resume his condition. But it will not be so with the grass-fed hunter. He has accumulated a load of soft, unhealthy flesh, which must be got rid of at the expense of his legs and feet; or, in the language of grooms, "it must be exchanged for better flesh, the produce of hay and corn." By feeding *ad libitum*, however, he has so plethorized his system, and trespassed upon his digestive organs, that this is become not merely a work of labour and time, but one of no small risk to the general soundness of his constitution. Nor is even this the extent of the mischief. Under the most favourable circumstances, it is not in the power of a groom, how good soever he may be, to bring the grass-fed hunter into the field, fit to be ridden, with hounds, until the hunting season is half expired. For proof of this assertion, we need only go to the race-horse, who cannot be made fit to run under, at least, six months' preparation, although he has not been at grass since he was six months old. Nature will not be put out of her course by violence; and horses can only be got into good condition by degrees, by long continued slow work at first, increasing in pace as their condition increases; and it has been the attempt to get the grass-fed hunter into something approaching to condition, by hurrying him in his work, under a load of flesh, and with his muscles in a relaxed state, that has ruined thousands of good horses, by the injury done to their legs especially; and will ruin thousands more, if persevered in. The change of food, again, has been the cause of more broken-winded horses than any thing else that can be named. "It must dispose," says Mr Percival, "from its being the chief cause of plethora, to general diathesis of the system; and so far it contributes to the production of pneumonia, or any other inflammatory affection." To this we may add blindness, the natural consequence of the dependent posture of the head when feeding, in an animal in the plethoric state that a previously highly-fed hunter must fall into, after being some weeks at grass; and likewise of constant irritation from flies and sun. Neither should the following remark of Mr Percival's be forgotten by gentlemen who turn out their hunters during a wet summer. "Cold," says he, "abstractedly from wet, even although it be alternated with heat, is not found to be near so prejudicial as when moisture is present too; hence we are in the habit of viewing frosty weather as a season of health among horses; and hence it is, that the spring and autumnal months are the most unhealthy, the weather being then moist and variable, and the wind generally in a cold quarter." Again, "Two undomesticated horses," says he, "out of three, under five years old, that are taken from cold situations, and kept in warm stables, will receive catarrh. But even domesticated horses that are advanced in years, and that have been accustomed to such changes, do not always escape, unless some precautionary measures be taken; for hunters taken up from grass in August, unless due attention be paid to the temperature of the stable, are often the subjects of catarrhal attacks."

Perhaps the summer of 1835 may be produced in proof of the danger of subjecting stabled horses to atmospherical changes. In the first week of June, 78, 80, 82, and 84 degrees of heat were marked by the thermometer. On the 13th, the maximum of heat was 15 degrees less than that of the preceding day; and on the 23d, the thermometer fell to 47 degrees, succeeded by four days' rain, with wind veering to south-east, back to west, then to north and north-east, at times furiously high!

We must be allowed two more remarks on the evils of

Treatment of Horses. the out-of-door system. Amongst the physical changes which the body is capable of receiving, none is so visibly effected as in the diminished, or increased, size of the belly; and the latter alternation of form is speedily effected by a horse eating grass, and nothing but grass. When a man goes into training for a match against time, or a prize-fight, the first act of his trainer is, to reduce the size of his belly; for, until that is done, his respiration is not free enough to enable him to make such bodily exertions as are essential to augment his natural vigour, and put him into the best possible condition; and this exactly applies to the grass-fed hunter taken up in August. He has exchanged an active untiring frame, for a bloated and breathless carcass; and nothing can be done with him until, by purging and *severe work, when he is not in a fit state to endure it with impunity*, the nature of his frame is altered from weakness to vigorous health. But this must be the work of time, for, although Nature will admit of improvement, she will not allow herself to be hurried by the unreasonable innovations of man.

Our next remarks relate to bodily infirmities and local diseases, to which the horse, by the severity of his labours, is always more or less subject. Several of these, such as splents, spavins, curbs, and ring-bones, are easily checked, if discovered in their incipient state; but when, by being undiscovered for only a short time, a certain progress is made in them, the cure is far from certain, at all events, more difficult. Now, under the old system of the summer's run abroad, this was most frequently the case. Horses, when taken up, were found to have thrown out those excrescences unperceived, which, as soon as they began to work, caused lameness and disappointment; whereas, under the improved system of summering the hunter, they could not have escaped the constant inspection of the groom, and an immediate check would have been given to them. The short-cough, vulgarly and stupidly called a "grass cough," also too often swelled the catalogue of disasters; and, in six cases out of ten, ended in broken wind or roaring. But it may not here be amiss to address ourselves to owners of hunters, who may adopt either one system or the other of treating them in the summer months; we mean, as regards their legs, the treatment of which now forms a conspicuous feature in the science of the stable, particularly the racing stable. Many valuable animals are ruined in consequence of their owners and their grooms not knowing, perhaps not wishing to know, when their legs are going amiss, and consequently stopping them in their work, before the evil gets a-head. It is irksome, no doubt, to give up the use of a hunter, especially if a favourite one, and in blooming condition; but it is only by such prudent conduct, that we can expect a lengthened enjoyment of his services. It is a lamentable fact that, generally speaking, good-constitutioned horses would wear out two sets of legs and feet, which shews the urgent necessity of taking care of them.

We now take our leave of the old, and, we may add, ruinous system of treating hunters in the summer, and proceed to state how, in our opinion (the result of much experience) they ought to be treated in the non-hunting months; as also to offer a few directions for the management of them when in work. To begin, we are far from averse to resting the hunter in the summer, although we cannot shut our eyes to the fact of horses working hard for a great many years in succession, without experiencing what is here meant by "*rest*," (namely, not having a saddle on their backs for three or four months), and remaining sound and healthy to the end of a long life. Our great object is, to give the hunter fair play, by preserving, instead of destroying, his condition at the same time that we rest him; and in this we think, that, by preventing exhaustion in his work when he returns to it, we offer him much more than an equivalent for the fancied enjoyment

Treatment of Horses. of his "snuffing the air in his native liberty," and "making his bed on the cool ground," so stoutly insisted upon by many of the old school, who will not march with the times, and who cannot divest themselves of prejudices, how dear soever they may cost them.

The period of "turning up," not "*out*," hunters towards the close of the season should depend on circumstances. Those whose legs may be doubtful, should be the first thrown out of work; and after them old ones, who, how well soever they may go over a country when it is soft, are in danger of breaking down when it becomes hard, as it always does in March, particularly in ploughed countries.

The first act of a groom, when his horses have done their work for the season, is to give them two doses of mild physic, which, by their effect on their legs, will greatly assist him in discovering the amount, if any, of the injury that may have been done to them. Should anything serious exhibit itself, we recommend him (unless he be a first-rate professor of his art) to avail himself of the advice of a veterinary surgeon, as to the steps proper to be taken; and the sooner those steps are taken, the better will it be for his horses. The barbarous, the senseless, practice of blistering, generally the two fore-legs, and often the hinder ones also, previously to turning out, under the old system, is now, we are glad to say, abandoned, not only on account of its inutility, but, by the spread of veterinary science, sportsmen have found out that the application of blisters to healthy legs is injurious. The merely irritating the surface of the skin cannot be productive of advantage; on the contrary, it often rouses the sleeping lion, which it is afterwards difficult to pacify. As counteractors of internal inflammation, or as counter-irritants, as they are called, blisters are highly useful; likewise to all bony excrescences, such as splents, spavins, or ring-bones, when in an incipient state; but, in order to render them efficacious, they should be repeated till healthy pus is obtained. If judiciously applied in strains, they are also not unserviceable, as they help to unload the vessels near the affected part. Supposing, then, no serious mischief has been done to the legs of a hunter during the season, we thus proceed in our course of treatment of him:—

Previously to stripping him of his clothes, he should go through his second dose of physic, and be treated exactly as if he were in work for at least a fortnight afterwards, with the exception of his having only walking exercise, a diminished allowance of corn, and the wisp, without the brush, applied to his body. We now arrive at a point on which there is some difference of opinion, at all events, one which must be left to the option of the owner; namely, whether, as is the practice in the stables of some of our first-rate sportsmen, the hunter is to be kept in gentle work throughout the summer, or to be thrown entirely aside for a certain number of weeks, varying from nine to twelve? We will, however, state the best method of proceeding under each of these systems.

The horse kept in work (we should rather have said exercise) during the summer, should be exercised very early in the morning on soft, but not wet ground (a low meadow, or rather a marshy common, for example), that his feet may have the advantage of moisture, and also that he may not be tormented by flies, or exposed to a hot sun. Two hours will be sufficient, the pace to be varied alternately from the walk to the jog-trot. It is desirable that a horse thus treated should not be tied up in a stall, but have the enjoyment of a large loose-house. Of course, attention should be paid to his feet, removing his shoes every third or fourth week; and they should be stopped with wet tow every second night. To those who object to this in-door treatment of the hunter on the score of danger to his feet, we can only say, from our own experience, that their fears are groundless; and we also refer them to the first cavalry

Treatment of Horses. —barrack they pass by, or even to the stables of our inn-keepers on the road, in which they will find feet in the highest state of preservation, that have been subject to indoor treatment for many years. We prefer damp tow to any other sort of stopping for horses' feet, because, exclusive of the moisture, it affords a uniform pressure to the frog and outer sole of the foot, which is favourable to their healthy state. Indeed, to some of the finely-formed, open feet which we see on first-rate hunters, the soles of which are apt to be thin, this pressure is most advantageous in preventing a disposition in them to become flat or convex, instead of moderately concave; and for this purpose was the "horse-pad," or "elastic stopping," invented by Mr Cherry, veterinary surgeon of London, which may be preferable to the tow, but not always at hand. When the latter is used, it should be forced into the foot with all the strength of a man's fingers or thumb.

The food of hunters thus summered should be regulated by circumstances. Good flesh, we know, is strength; but that which is generated in comparative idleness only contributes to weakness. Our object, then, should be to prevent a horse, treated in the manner we now allude to, from throwing up much flesh, and we must therefore feed accordingly, and also study constitution. At all events, three small feeds of oats (we do not feel ourselves justified in recommending beans, although we know some sportsmen give them; except in very peculiar cases, such as extreme delicacy of constitution, a disposition to scour, or throw off food) per day are sufficient for any horse, with the addition of a large, sloppy, bran mash twice a-week. As to green food, we recommend that with caution. We approve of its being given occasionally for three or four days in succession, merely as soiling, to attenuate the blood, not to produce flesh; and this repeated now and then at intervals, whilst the green meat (be it what it may) is young, but by no means afterwards. Many grooms mix hay with green food, which, after the first two or three times of giving it, we think a judicious plan. But, be it observed, for reasons we have already given, we object to a hunter acquiring a load of flesh in the summer, the produce of succulent food. A moderate use of alteratives is beneficial throughout the summer to horses which live well, but do not work, as, by their mild and gradual impression, a healthy action of the bowels is kept up, as well as insensible perspiration increased.

The horse *not kept in work* should be thus treated in the summer: He should run loose in the bay of a barn, or any large covered place where he gets exercise, and breathes fresh air, without exposure to the sun. His physic, food, &c. should be as before directed; but as he is now unshod, and consequently cannot have his hoofs filled with any thing which can impart moisture to them, he should be made to stand two hours every day, under cover, in wetted clay. Unless after firing, or severe blistering, when the sedative powers of cold air are efficacious in checking local inflammation, we prefer the hunter being housed throughout the night, to his lying out even in a paddock, as he is less liable to disease and accidents; but we admit that the danger of exposure to night air is greatly diminished by his having been kept cool throughout the day, by which he is less susceptible of atmospheric influence, or the alternation from warmth to cold, than if his arterial system had been acted upon by exposure to a mid-day sun. The sticklers, then, for the "dews of heaven," and the "bed upon the cool earth," may here indulge their predilections; but, for our own part, we give the preference to the house at night with horses free from disease.

The state of the horses, summered as we have now described, will in great measure resemble each other, although, as may be supposed, the one which has been kept on in his exercise will be most forward in condition. Neither of them, however, will have lost much of their proper form;

but a distinction must be made in our proceedings with Treatment of Horses. —them, when preparing them for the forthcoming season. "Suffer a horse to be idle," says Mr Perceval (*Hippopathology*, p. 14), "to do little or no work, and feed him well during the time, and the redundant nourishment floating in his blood will be laid up in the form of fat; put the same animal to work, and that blood, which otherwise would have been turned into fat, will now be transformed into materials of strength." Here, then, it is evident that the horse which has been kept in exercise will require somewhat of a different preparation to the one which has remained unshod, and consequently idle. The first will require very little alteration in his proceedings until nearly the approach of the hunting season, as he will soon be prepared for quick work; but it will be by long-continued slow work, increasing in pace as his condition increases, that the second will be quite himself again, from the relaxed state of his muscles, somewhat redundant flesh, as well as his distended belly. In either case, however, there will be no occasion for all that physicking, galloping, and sweating, to get rid of bad, superfluous flesh, that the grass-fed hunter has been subjected to; for if the groom has done his duty by them, neither of these horses will have accumulated much more flesh than we like to see on hunters when they first begin to work, and when that flesh is good. We would have our second horse, the unshod one, taken into his stable early in August; and during the latter end of that month and the next, in addition to his daily exercise, he should, about three times in a fortnight, have a gentle sweat in clothes, which is best effected in a trot, in a large fallow field that has been lately harrowed down, and which is firm, not soft, to the tread.

But we fancy we hear the question asked, Is it not necessary to give physic to all hunters when the summer is past, and previously to their taking the field again in the winter? We answer, *No*. The principal end of physicking hunters is to allay excitement, occasioned by severe work and high keep; and the next, for the benefit of their legs. Thus, for example, as the first-named horse (the one that has been in gentle work throughout the summer), will not sweat so easily as the unshod one, a light dose or two of physic may be serviceable to him during his first preparation for the field, say in August or September, as the means of saving his legs, should he be a strong-constitutioned horse, and have thrown up too much flesh. But there is no absolute necessity for physic at this period to horses that have been properly treated throughout the summer, and not suffered to get foul or fat; and it will be given with more advantage to them after they have been some time at work, or nearer to the commencement of the hunting season, which, after the manner of the racing stable, may be termed a second preparation. We think, however, we cannot do better here than to quote the following passage on this subject from the April Number, 1835, of the *New Sporting Magazine* (vol. viii. p. 353), as the ideas exactly correspond with our own.

"To horses summered in the house, physic is now only administered when it is wanted, as is the case with the race-horse; and the groom or his master ought to be able to say *when*. There are many directing symptoms with horses in work, which cannot escape an observant eye; and we do not, as formerly, wait for the swollen leg or the running sore. The barbarous practice, also, of three doses in succession (as was the practice with the grass-fed hunter on being stabled), 'the first to stir up the humours, and the last to carry them off,' with two strong urine balls to wind up, by way of a remedy for consequent debility, is also happily exploded. The strength of the dose is likewise greatly diminished, and consequently all danger is avoided. We take upon ourselves to say, there is no more risk attending administering physic to a horse, than there is in giving him a pailful of cold water, perhaps not so much;

Treatment of Horses. that is, provided the drugs are good, and well put together. We, however, strongly recommend all sportsmen and others to obtain physic from the profession, as veterinarians bestow much attention on the making of it up, and obtaining the best aloes, in which there is much difference. The sooner it passes off the better; and this will be much expedited by three loose bran mashies on the day preceding the dose, and exercise previously to its working. Recollect there is no virtue in this case in the aloes, beyond doing its duty in clearing and cleansing the bowels. Calomel, when administered to the horse, should not be hurried, as it is intended to act upon the system, and should therefore be given twelve hours previous to giving the purge. Horses whose bowels are difficult to be moved, should be kept short of hay a day or two before they are physicked, with an additional allowance of bran mashies, and encouraged to drink before they experience nausea."

It may, perhaps, be well to state the "directing symptoms" for administering physic to the hunter, which are thus detailed by Nimrod. (*Condition of Hunters*, p. 173.) "Among the distinguishing symptoms of foulness in a hunter, are these:—He appears unwell, without any specific disease: his mouth is hot, his eyes look dull, and sometimes yellow: his coat loses some of its usual gloss, and stares between the hip-bones, and on the poll of the neck: his appetite frequently remains good, but he is more than usually anxious for water: his heels are scurfy, and sometimes crack: he stales often, but a little at a time: his urine is highly-coloured, and his excrements hard, and often covered with a slimy fluid: he is dull when at exercise, and frequently coughs without any appearance of having taken cold: he loses flesh, and looks dry in his skin: his legs and ears are often cold, the latter frequently wet after exercise, and sometimes deprived of part of their natural covering: his crest falls; the whole tone of his system appears relaxed; and, without his groom exactly knowing why, he is not the horse he was a week ago." To this we have nothing to add, unless it be to congratulate owners of horses on the terrors of physicking them having vanished with the present improved method of administering the doses; and on the fact, that only a few days' cessation from labour is now required to afford them this relief. We should say, that a hunter is never more fit to go through a sharp run, than on the tenth day after his physic has "set."

But we do not consider that we can close this part of our subject, without a few words on the treatment of the grass-fed hunter, as there are still some who yet abandon him to shift for himself in the summer, and are content to see him return to his stall in August, the very reverse of what he was when he left it in May. Nor is this the worst of it. He cannot be reinstated in the condition in which he was when he went out in May, until hunting is three parts over the following season. However, we will lay down what we consider the most likely plan to pursue, to fit him for the work he is intended for:—

From the redundancy of blood and humours, and distension of bowels beyond their proper size, which the grass-fed hunter acquires, all violent exertion must be avoided, until such obstructions are removed, which must be the work of time. It is in vain to attempt to hurry a horse in this state into condition, but the first step taken should be to have him clipped, for reasons which we shall presently give. Long-continued slow exercise is the chief agent in hardening his muscles, and strengthening his organs of respiration; but all galloping when in the state in which he will be for the first two months, to get off his flesh, is very highly to be reprobated, as his legs will surely suffer by it, if nothing else does. Two light doses of physic may be useful to him, if he have had none given him at grass; and care should be taken not to use the brush to his coat till the month of November be passed, in case he should not be clipped. Again, veterinary science has informed us, that

Treatment of Horses. danger always accrues to horses in the vicissitudes of heat and cold, from one state to its opposite; but more from the latter to the former, as an excitant to general inflammation. Horses taken from grass, then, should be put into very cool stables, and the fewer in one stable the better, for at least the first month. Windows should be left open day and night, merely taking the precaution of coarse matting, or any thing else that will stop the entrance of flies; and nothing does that better than matting, frequently saturated with water. Having been clipped, and kept out several hours in the day in slow work (which, by the way, grooms are too often shy of), increasing his pace gradually as his condition progresses, the grass-fed hunter may be brought fit to look at by the first week in November; but he will be at least by a stone a worse horse than he was when he was turned out. We are no friends to quacking in either man or beast; but, knowing that mischief to horses so frequently arises from a long respite from work in the winter, unless some preventive measures are had recourse to, we recommend the repetition of a light dose or two of physic to the grass-fed hunter during frost, or even during open weather, about Christmas.

Having recommended the fashionable operation of clipping to the grass-fed hunter, we will give our reasons for having done so. Nine horses out of ten, treated as he has been treated in the summer, break out into a cold sweat, after work, during the first part of the season, the natural consequence of debility; and the dew on their coat has all the chilling influence of a wet blanket on their body. The removal of the coat by the scissors, then, although it is no remedy for the former, prevents the ill effects of the latter; which, by producing cold on the surface of the body, occasions a determination of blood to the lungs, or other important viscus, and is a great enemy to condition. Although we deny the necessity of clipping a horse that has been *properly* summered (for, admitting that he may have a long coat, he will not in that case break out after work), we allow it the merit of expediting condition, by giving increase of bulk, and promoting the vigorousness of the horses' renovating powers; and, therefore, in this case useful. Looking at it, however, in another light, we find many objections to it; amongst the greatest of which is the deprivation of the protection of the coat or hair, to an animal so much in want of it as the hunter is, and therefore an outrage on nature. In fact, it is, to a certain degree, a substitute for good grooming, and as such will continue to be in favour with many grooms, as also with such of their masters as submit to be dictated to by them, or who may pay too much regard to appearances.

Having alluded to grooms, a remark or two may not be ill placed. Such of them as have the care of large studs cannot be expected to work, but to overlook those who are under them; and their responsibility is considerable. There is much in the choice of helpers; for none but persons who have narrowly watched it, are aware of the effects of a good dressing to a hunter, not merely in having his skin cleared from impurity, and in improving its elasticity, as well as the tone and colour of the hair, which may be termed the complexion of a horse, but it greatly promotes general health by its effect on the circulation of the blood, as well as all other secretions, and in bad weather is a substitute for exercise.

Good stables are indispensable to the well-doing of hunters, equally so with a comfortable house and a warm bed to those who ride them. Even the veterinary professors have at length acknowledged the benefit of the genial warmth of a stable to horses at work, although, in common with ourselves, they insist on the necessity of well-ventilated stables. No doubt it is injurious to any animal to breathe an under-oxygenated air, and the effluvia arising from animal excretions are injurious to eyes and lungs. A hunter should live in a temperature of about 63° of Fahrenheit in.

Treatment of Horses. the winter, and as much below that point as it can be made in the summer, by means of exclusion of the sun, open doors, &c. But it is essential that a stable in the winter should not only be warm, but dry; and if not dry, the ground under and around it should be drained. A delicate horse never arrives at perfection of condition in a damp stable, and it operates powerfully against all others, often being the cause of fever in the feet. Stalls should not be more than six feet wide, nor raised towards the manger; but there should be a slight inclination in the flagging towards the centre of them, to enable the urine to find its way to a drain, which there always ought to be, as it contributes much to cleanliness, and consequently to health. "Loose places," or "boxes," as they are termed, are most desirable for all horses after severe work, and a celebrated veterinary surgeon (Mr Turner of Regent Street, London, to whom the public is so much indebted for his illustration of the navicular disease in the foot) has given it as his opinion, that if all horses were suffered to lie loose after work, there would not be half the cases of lameness in the feet that now occur. Desirable as such treatment may be, it is universally impracticable, on account of the space which large studs would occupy; but every sportsman should have boxes about his premises, and his hunters should be invariably put into them for two or three days after work. To their general use there is one objection, although not a serious one. Horses always lying loose are apt to refuse to lie down in stalls, when removed to premises where boxes cannot be had, but they become reconciled to them after a few days. It is, however, the opinion of a celebrated sportsman, that if a hunter should have stood his work ten seasons being always tied up, he would have stood it twelve if he had lain loose.

We quote the following extract from *Nimrod on Condition of Hunters*, on the subject of warm stables. After proving, by the fact of the horse degenerating in all cold countries, that warmth is congenial to his existence, he thus proceeds:—"They who attend to such matters will find, that the constitution and habit of a horse undergo a change when kept in a warm stable, favourable, no doubt, to the work he has to perform as a hunter in the stable of a hard-riding man. He is not that gross animal which he might otherwise be, if a hard feeder, and kept in a state more nearly approaching to a state of nature. This we may attribute to the increase of insensible perspiration occasioned by increased circulation, whereby the grosser particles of the body fly off and are got rid of. In this state he would bear some comparison with a well-fed English farmer, when put to perform feats of activity with a man of more refined habits of life, where nineteen times out of twenty he would be defeated." Again: "As there is an analogy between a man and a horse in work, let us carry it a little further, and ask, Whether, after a hard day's exercise in the winter, a man would recover sooner if he passed his evening in a warm room, or if he passed it in a bivouac, or in a room that was cold and damp?" He concludes by giving it as his opinion, that if it be possible to get a horse to look well in a cold stable, it is not in the power of a groom to put him into the height of condition in a damp one; and in this we heartily concur.

We subjoin Nimrod's plan of stabling for six hunters. "I would have," says he, "two four-stalled stables, in which I would keep only six horses, that is, three in each; and I would have a box at the end of each. If possible, I would have a southern aspect, with windows opening from the top or downward, or else on a pivot in the centre, and placed so high in the wall, that, when open, the air may be circulated through the stable, without affecting one horse more than another, and the height of the interior should be only twelve feet in the clear. I would have the stalls paved nearly flat, with only a trifling inclination to the centre in each of which there should be a

small grating over the drain, and the stalls should be no more than six feet wide. There should be at least twelve feet behind the horses, and the exterior walls and doors should be very thick. The wooden partition-walls of the boxes should be only nine feet high, with wooden bolts to the doors; and each box should not exceed ten feet square. The saddle-room, well fitted up with saddle-cupboards, boiler, &c., should be in the centre of the building; in the front of which there should be a passage, under cover, for horses to stand in when their legs are washed. Of ventilation I say nothing, that being a matter of course; but I would have the sides of the stalls nine feet high at the head, with small iron racks, and pillar-reins for each horse to be dressed in. I should be very particular about the stall-posts, for these are frequently the cause of severe injury. When I went to see the King's stables at the palace at Pimlico, I was astonished to see almost every other horse in them, with capped hocks. On inspecting the stall-posts, I perceived the cause. They were of fluted stone, and with angles, which proved that Mr Nash (the architect) knows nothing about the inside of stables. Stall-posts should be made of wood, quite smooth and circular; and they should extend to the ceiling, or be at least ten feet high."

Paddocks.—Some persons turn their hunters into the fields in the summer, because they have no small paddocks, or any outlets to their buildings, and are averse to their horses remaining all the year round in the house. Nothing, however, is easier than making temporary paddocks, or outlets that will restrain stallions, or any horse that may be put into them, without the chance of their breaking out of them. Let a small space, say thirty or forty yards, be hurdled around, and the hurdles lined with faggots reared up from seven to eight feet high. The faggots will be all the better for the exposure to the air during a summer; and as horses cannot see through a fence of this sort, they will never attempt to break through it.

Food.—The proper feeding of hunters has much to do with their condition, and likewise with their remaining sound. Food should be proportioned to work, and it should also be of the very best quality. Hay that has been much heated in the stack is above all things to be avoided, as, from its powerful diuretic properties, it debilitates, and creates thirst; and mow-burnt or heated oats are equally productive of mischief. Eight or ten pounds of hay per day are as much as any hunter should eat, and that which is produced on dry upland ground is best. Indeed, we are far from thinking that rich meadow hay, finely scented as it is, and apparently so full of nourishment, is fitted for any description of horse that is required to go fast, and we are quite certain that thousands of horses are destroyed annually by the effects of hay and water. The latter cannot be too soft, and when not so, it should be kept in the stable some days previous to use, and with a small portion of bran in it. Mr Percival (*Hippopathology*, p. 25) mentions forty-nine horses being killed in one stud, in France, by a disease produced by eating bad hay and oats.

But nothing puts the groom's knowledge of the art of feeding hunters more to the test, than the management of such as are either naturally thick-winded, or afflicted with chronic cough; and as in man, the digestive organs are oftener than any other disordered, so the respiratory organs in the horse are the most common seat of disease. It is, however, in the power of a groom, by great attention to feeding, keeping the habit of body from becoming foul and plethoric, and well regulated work, to make horses of this description tolerably fit to go with hounds; whereas in bad hands, they would be nearly useless, at all events dangerous to ride. Such horses are generally hearty feeders, and when so, should have a setting muzzle, as used with race-horses, put on them on the night before hunting, unless they have been out with hounds within three days. Water also should be sparingly given to them on that day, and not

Treatment after three o'clock P. M. Frequent mild aperients, or alterative medicines, are very efficacious here; for as, in the human subject, the lungs often become the seat of disease as a second cause of indigestion, the state of the digestive organs should be minutely attended to with horses of this description.

A broken-winded horse is never seen in a stud of hunters; but Nimrod's remark on this subject is in accordance with what we have now written upon it. "Most veterinary surgeons," he says, "attribute this disease to the consequences of high keep. Here, no doubt, they are in a great measure correct; but if good grooming were not for the most part a match for the effect of high keep, what would be the fate of our race-horses, which eat almost as much corn as they can swallow from the first mouth of their existence? Amongst them a broken-winded horse is a rarity."

Many nostrums are prescribed for thick-winded horses, amongst them, carrots in the winter, and green meat in the summer. We approve of a few carrots in the winter, but object to green meat, unless in small quantities. Is not flatulency the distinctive feature of a disordered respiration? And what promotes that equally with loading and distending the stomach with green food? The small dimensions of a horse's stomach, evidently shew what nature intended him for, namely, *to go fast*; and the pathologist would very soon convince us that, in proportion as that organ is distended, will the respiratory organs be oppressed. Hence the indispensable practice of not allowing hunters their usual allowance of food and water on the morning of hunting; as also of putting the setting muzzle on the racer the night before he runs. The food most proper for all horses, but particularly for such as are not perfect in their wind, is that which contains most nourishment in the smallest compass or space.

But we must not overlook the treatment of the *sound* hunter before and after hunting; as we consider the lives of more than half of those hunters which have been lost from the effects of severe chases, to have been lost from want of knowledge of how they should have been treated, at either the one or the other of these periods. Nimrod, in his letters on this subject, doubts whether it be in the power of hounds to maintain a chase long enough to cause the death of a horse, fairly ridden with them, provided that horse have been properly treated in the summer, and is in what is called strong work, or quite fit to go, on the day of the run. Without stopping to argue this point, which is not capable of proof, we will proceed to shew in what state a hunter ought to be taken into the field, to meet foxhounds, giving him fair play; and the man who takes him there when not fit to go, must always be prepared for the consequences.

We consider a hunter, in proper condition, equal to at least three days' hunting in a fortnight, taking the average of sport, which will, of course, at some certain periods, send him oftener into the field in one given time than in another, as, after a severe day, he should have a week's clear rest. But since the second-horse fashion has been so general, it is impossible to speculate on this point, as it so often happens that one of the two horses the sportsman sends to cover, returns home without having done much. The chief point, however, to be insisted upon is, that the hunter should have a good gallop, causing him to sweat freely, on the day before he goes to hounds, and if for half-a-mile on rising ground, it will be more favourable to his wind. His food on that day should also be attended to, in reference to his constitutional peculiarities; for, if not the best winded horse in the stud, or given to throw off his meat on his road to cover, he should have no water after three o'clock the preceding afternoon, with the exception of a few swallows, to make him relish his corn, on the morning of hunting. Sending hunt-

ers out now with full bellies has no excuse; whereas one was found for it, when they left their stables five hours sooner in the morning than they do at present; and returned to them often five hours later. We allude to past days in which there were few artificially made covers, and when foxes were found by the "drag," through long chains of woods, and certainly ran over much more ground than modern foxes do, which, being generally bred near game preserves, run shorter, and are not so stout as formerly.

After Hunting.—The treatment of a horse now, will depend on what he has been doing. If not a severe day, no further notice of him is requisite, than to ascertain whether he feeds as usual; and if not an alterative ball,¹ with a liberal allowance of tepid water, will soon restore his appetite, by allaying the over-excitement that has checked it. It is after a severe day's work that danger to a hunter is to be apprehended, the consequence of over-excitement of the vascular system, and he should be in this case narrowly watched. If merely fatigued, such are the restorative powers of the animal, rest, in a large loose box, with an hour's exercise daily, in the open air, will soon bring him about; but we should be on the alert against fever. Here, however, we generally have notice,—some directing symptoms which cannot be mistaken, such as hurried respiration, extreme thirst, restlessness in his stall, a considerable relaxation of the muscles in the interstices of the hips, reddened eyelids, and a quick pulse. But unfortunately for hard-riding sportsmen, it too often happens, that such is the rapidity with which what is termed accidental inflammation takes place in the horse, that the most prompt measures will not always arrest its progress, and the most common termination of it here is in the feet. Not only does the animal suffer great pain, but should he not cast his hoofs entirely (the fore-feet are most commonly affected), he becomes, what is called, pumice-footed, and of no value afterwards as a hunter. Knowing this to be the case, we are advocates for some prophylactic measures to be taken after a very hard day; something repellent and sedative administered, which may not only prevent an inflammatory attack, but, by cooling the system, and consequently restoring the appetite, enable the horse to go sooner into the field again, than if he had been entirely abandoned to his own restorative powers.

But the most critical period with the over-ridden hunter is, when he first appears to shew distress, which he often does on his road home, or even before he quits the field; and here mistakes have been made, which have caused the death of many a good animal. In the first place, his rider fancies it necessary to drag him home, perhaps many miles on a cold winter's evening, to "his own comfortable stall," than which, just at this time, a large and cold stable, and the first he could be put into, would be far more beneficial to him. Again, he says, "I'll not do any thing to him till I get him home, when I will have him bled;" whereas, since all horses that die from exertion beyond the limits of vital power, die from suffocation, it will then be, in all probability, too late, as *instant* relief is wanted. A stimulating cordial is likewise at this time good (a pint of sherry as good as any other), but both are bad if inflammation has commenced; also keeping up a strong determination of blood to the surface by friction of the body, head, and legs, with warm clothing afterwards on the body and head; a well littered down stall, with plenty of fresh air. A gallon of blood should be at first drawn; and if the increased action of the heart and arteries continues, the horse should be well blistered behind the elbows, and lose another gallon of blood. Blood-letting from the foot-veins, is also highly to be recommended in cases of extreme exhaustion, after a hard day with hounds. It is a very simple operation, and can never do harm; but we advise it to be performed by a veterinary surgeon.

¹ The following alterative and sedative medicines are found efficacious at this time:—Cinnabar of antimony, 3 oz.; balsam of sulphur, 2 oz.; camphor, 1 oz.; nitre, 4 oz. To be made into ten balls; one ball a dose. These are known among groomers by the term "red balls."

Treatment of Horses. They who have never before experienced it, may be alarmed by an inward noise in a distressed horse, which may be mistaken for a beating of the heart, whereas it proceeds from a convulsive motion of the abdominal muscles, or muscles of the belly. It is, however, a symptom of deep distress, and is only relieved by relief given to the lungs, by bleeding and other preventive means.

Treatment of Horses' Legs.—We have already said, that the management of horses' legs forms part of the science of the stable, and a most important part too. It is no where so well understood as in racing stables; but from the violent nature of his work, the hunter is equally indebted to it. The barbarous practice of blistering all four legs previously to turning out, is now happily exploded; but as in less violent exertion than following hounds, a certain insecurity from accidents is inseparable from the delicacy of all animal structure, the legs of hunters will occasionally fall amiss. It being useless, however, without stating the extent of the injury, to talk of prescribing remedies, we have only to state, that a very efficient one has been found for the torturing one of firing, in many cases where the actual cautery was considered as the only one. For example, for ligamentary enlargements, cases of enlarged joints, tendons shewing symptoms of giving way, or any other appearance in the limbs, of a departure from their primitive tone and vigour. This consists in the application, during the non-hunting months, or any other period of rest, of the mercurial charge, in either of the following forms. It is made up by Mr Field, veterinary surgeon of London, and no doubt by others in the profession, in a strong adhesive form; or, at a distance from the metropolis, it may be applied, as recommended by Mr Kueny of Nottingham, who is constantly in attendance upon the studs at Melton Mowbray, in Leicestershire. It consists of the common mercurial plaster (not ointment) of the shops, made up according to the London Pharmacopœia; and in the proportion of half-a-pound to a leg, applied in a warm and consequently liquefied state, and when covered by deer's hair, bound to the limb by means of a linen roller. At the end of a fortnight, the stitches of the bandage being decayed, the charge will slough off, when another, if necessary, is put on. It is to the highly absorbent property of mercury that the benefit here derived is to be ascribed; and it is no small recommendation to it, that, in addition to the general restoration of the limb, the painful operation of the actual cautery, as also the blemish occasioned by it, are avoided.

It is, however, a well known fact, that hunters will work and stand sound, for many successive seasons, with legs apparently much out of form. Enlargements take place in the sheath of tendons after strains; also from blows, where the parts become lined by a thick coat of lymph; and sometimes the body of the bone itself is found thickened, from a deposition of bony lamina over the original bone. When all this has been in progress, we question the propriety of any active measures, unless, as is generally the case, a feeling of soreness is expressed after work, by a shifting, or favouring of the limb, or limbs, in the stall; or by a "feeling" manner of going on first quitting the stable. When legs are really callous, little impression can be made upon them, unless by active measures; but physic, rest, and good grooming, are the best preservatives of these most essential members of the horse's frame; with the friendly auxiliaries of hot-water, flannel bandages, and loose boxes, after severe work, and good shoeing at all times.

The Foot.—Owners of valuable horses may congratulate themselves on the assurance that, by the aid and extended influence of veterinary science, they have no longer to apprehend injury to the feet from the mere application of shoes. On the contrary, they may rest satisfied that, provided no internal disease attack them, from over-excitement by work (and that often is created on ground where shoes would be unnecessary, such as crossing a very deep coun-

try), they will be not only as sound and healthy, but in better form, from having been properly shod, than if they had not been shod at all. Some hoofs, however, having a greater disposition to secrete horn than others, and thus called strong feet, should never remain more than three weeks without being subject to the drawing knife of the blacksmith (the ruinous butteris is now put aside), and the shoes properly replaced. Neither should stopping with damp tow be omitted; as moisture, *not wet*, is beneficial to the health of the foot. Here then, again, are at once apparent the evils of the out-of-door summering of hunters. The foot of a horse so exposed, is at one time saturated with wet, and at another exposed to a drying wind and a burning sun, the contractile powers of which upon horn, are too well known to require comment. Do what we may, however, horses that are required to "go the pace," will always be more or less subject to diseased feet, quite unconnected with shoeing; and against such diseases there are but two precautions on which much reliance can be placed: First, let hunters be well prepared for their work, and properly treated after it; and, secondly, let them have sufficient obliquity of pastern-joint (in our opinion one of the most important points in the whole structure of the horse), to break the force of concussion; which, together with over-excitement of the vascular system, is the parent of that irremediable disease of the navicular bone, formerly called "founder;" and by the wisacres of old times, "chest-founder," because the muscles in that part wasted, from the inability of the suffering animal to exert them. The posture of a horse in his stall, when afflicted with this complaint, or fever in the feet, is too characteristic to be mistaken.

We have only one more remark on shoeing. In following hounds across deep countries, hunters are apt to strike a hinder foot against a fore foot, and inflict a severe wound. There have, indeed, been many instances of the total separation of the back sinew by this, often unavoidable act, particularly in leaping brooks. It was formerly very generally believed, that the blow was inflicted with the toe of the hinder shoe, to obviate which, shoeing smiths were ordered, by hunting grooms, to let part of the hoof protrude over the front of the shoe, but still the evil continued. It was, however, asserted, in the letters of Nimrod, that it was by the *inside edge, or the rim of the hinder shoe*, and not by the toe, that the act of over-reaching was performed. This was at first doubted, but experience has confirmed the assertion; and we have reason to believe, there has not been an instance of serious mischief by *cutting*, from an over-reach, since the inside edge, or rim, has been rounded off, or bevelled. Indeed, a moment's reflection would dispel all doubts on the subject; for the obtuse form of the toe of a horse-shoe could not inflict the severe wounds we have seen inflicted (often cutting off part of the fore-heel); whereas the inside rim of a worn shoe is nearly as sharp as an ordinary knife. Besides, the act is performed *after* the hinder-foot has overstepped the fore-foot, and therefore cannot be performed by the toe, but in the act of drawing the hinder foot back, after it has overstridden its bounds. Bruises, from over-reaches, still occur, which, though sometimes serious, are comparatively, with cutting, harmless, as fomentation, and a few days' rest, will effect a cure.

The action of the hinder leg reminds us of one useful hint to grooms travelling hunters on the road. If we follow a well-formed horse, with the free use of his limbs, on a road upon which his footsteps are imprinted, we shall find the hinder foot oversteps the fore-foot in the *walk*, but falls behind it in the slow *trot*. Exclusive of relief to the muscles by change of action then, it is safer to vary the pace from a walk to a slow trot on a journey, as causing less fatigue to the hock-joint, by which curbs and spavins are frequently thrown out. Add to this, the slow trot is the safest pace a horse goes, because his step is shortest.

(B. B. B. B.)

HORSEMANSHIP.

Horseman-ship. As to the question, Who was the *first* horseman? it would be in vain to inquire, for even the writers of ancient fables do not agree upon the point. By some it is pretended that Bellerophon first mounted a horse; that Pelethronius first bridled him; that he was harnessed by Erichthonius, and fought upon by the Centaurs of Thessaly. But quitting fiction, we learn from the Sacred Writings, that to Egypt we are indebted for the equestrian art, from which country, by the aid of the colonists who emigrated from it and from Phœnicia, it was introduced into Greece (perhaps by Erichthonius, fourth king of Attica), where it attained to great perfection. Although there was no cavalry employed in the Trojan war, equestrianism must have been much practised and well understood in Homer's time, which is at once proved by a reference to his works. In the fifth book of the *Odyssey*, the shipwrecked Ulysses, tossed by the waves on a plank, is compared to a skilful horseman on an unruly steed; and in the fifteenth *Iliad*, we find one man managing four horses at once, leaping from the back of one to another, at their full speed. Herodotus (in *Thalia*) speaks of hunting on horseback in the time of Darius, even descending to the particulars of an accident in the field to the noble satrap of Persia; and likewise the same writer (in *Melpomene*) mentions the Amazonian women hunting with their husbands on horseback. Xenophon also says that Cyrus did so, when he exercised himself and his horses. Again, with reference to those early times, we should not pass over the introduction of horses and horsemanship into the public games of Greece, and particularly the Olympic Games, which, according to an expression of Pindar, as far transcended all the others as gold is superior to the baser metals.

From the same authority we learn, that the Ethiopians and inhabitants of India, as cavalry, formed part of the expedition of Xerxes against the Greeks. But it appears that the Arabs and the Parthians, who afterwards became so famous for their equestrian accomplishments, were ignorant of the art at the period in question; at least both these nations fought under Xerxes, the former on camels, and the latter on foot. The Persians were more celebrated for their horses than for their riding. According to Athenæus, they were more solicitous of their ease and safety, than anxious for reputation of boldness and dexterity in horsemanship. The Scythians and the Sarmatians were both famous about this period, as well for their breed of horses as for their skill in riding them. In fact, so renowned were the former people, that, according to Gibbon, they were supposed by strangers to perform the ordinary duties of civil life on horseback; "to eat, to drink, and even sleep, without dismounting from their steeds."

The people of Mauritania, Numidia, Massilia, Nasamonia, and other adjacent parts, are also spoken of as having possessed breeds of excellent horses, but were still more distinguished for their singular mode of managing them (on the authority of Livy, and Cæsar) without the aid of a bridle, and even in battle by means of a small switch or wand, turning them to the left by striking on the right side of the head, and *vice versa*; and stopping them by striking the front of the face. These practices are also confirmed by Ausonius, who celebrates the Emperor Gratian as having excelled in them. All we have to remark here is, that we are glad such practices are abolished, not only on our own account, but for the sake of horses, who must have been greatly tortured before they were brought to such a state of obedience as to be ridden *infrani* (without bridles), as Virgil says of the Numidians, and this in the

confusion and excitement of a battle. There is an elegant **Horseman-ship.** passage on this subject in Lucan's *Pharsalia*, descriptive of the several tributary nations which Juba took into the field in the cause of Pompey, against Curio's army, which he entirely defeated.

"Autololes, Numidique vagi, semperque paratus
Inculto Gætulus equo," &c.

Thus translated by Rowe:—

"With him unnumber'd nations march along,
Th' Autololæ, with wild Numidian throng;
The rough Gætulian, with his ruder steed;
The Moor, resembling India's swarthy breed;
Poor Nasamons, and Garamantines join'd;
With swift Marmaridans, that match the wind;
The Marax, bred the trembling dart to throw;
Sure as the shaft that leaves the Parthian bow;
With these Massilia's nimble horsemen ride;
They nor the bit, nor curbing rein provide,
But with light rods the well-taught coursers guide.
From lonely cots the Lybian hunters came,
Who, still unarm'd, invade the salvage game,
And with spread mantles tawny lions tame."

The Greeks transmitted the art of horsemanship to the Romans, who soon equalled, if they did not excel, their instructors; and nearly one of the first public acts of their first king was to establish the equestrian order, the second order in Rome; the *equites*, or horsemen, being placed far above the commonalty, and next to those of the highest quality and fortune in the state. In short, were proof wanting that horsemanship, as an accomplishment, was held in the greatest esteem in the early ages of the world, it would be found in the fact of the accomplished Cicero (*De Off.* l. 2, c. 13) telling his son Marcus, with the vanity that now and then breaks forth in the splendid effusions of that great man's pen, that the eyes of the world were upon him, on account of his father's fame; and that he had received the praise of the whole army for his excellence in *riding*. But the exercise and art of horsemanship occupied much of the study and attention of the Roman youth; and we find Horace inviting them to the practice of it, in the eighth ode of the first book.

Descending from the heroic ages, in which the earliest history we possess informs us the art of horsemanship was in full force and vigour, to comparatively modern times, the first notice we find in our own history of the art of riding horses, is in the tilts and tournaments; the earliest mention of which we find in the French historian Nithard, who reports, that, at an interview which took place at Strasburg between Charles the Bald and his brother Lewis of Germany, the followers of both these princes fought on horseback; and, by way of marking the period, it may be observed, that Charles the Bald succeeded to the throne of France A. D. 840. Ducange affirms, that these combats were for some time peculiar to France, and expressly called French combats, *conflictus Gallici*. Scarcely any thing distinct, however, is known about them till we find them practised in England, about the year 1140, in the reign of Stephen, after which time they became general all over Europe, particularly in England, where they were displayed on all great occasions. The spots most famous for them in London, were the Tilt-Yard, near St James's Park, and Smithfield; which the neighbourhood of the latter place confirms, by the names of the streets, such as "Giltspur," "Knight-rider," and so on. They are also known to have been practised on the spots now called Cheapside, Barbican, and Bridewell; and to have been exhibited in considerable splendour in various parts of the country be-

Horseman-ship. sides, which a reference to the highly popular novel *Ivanhoe* will show. These were the days when "to witch the world with noble horsemanship" was one of the chief accomplishments of a gentleman; in which the management of the horse and the lance was amongst the principal requisites of knighthood; when the contest, both in real and in mimic war, was decided by the superiority of such means; the days of chivalry, in fact, which, as a well-known historian says of it, in his portrait of the character of a perfect knight, the accomplished Tancred, "inspired the generous sentiments and social offices of man, far better than the base philosophy, or the baser religion of the times."

The manège, and more especially the *high manège*-riding, is now nearly out of use. As Colonel Peters observes (*Treatise on Equitation*, p. 236, London, 1835), "In the riding-houses, for mere pleasure, or military purposes, very little of the manège riding is requisite. The instructions for a manège rider and his horse go far beyond those required for a military horseman and his horse. The confined airs, cadencés, or paces of the manège, are not calculated for the duty of a pleasure or a military horse; the sensitive, delicate hand, and its aids, of the manège-rider would not do for a soldier. It should, therefore, be well understood, that, although a soldier's horse should be quick and ready, it is not required to have him so much on his haunches, nor so fine in the mouth, as the manège-horse must be. If a military horse be put in his proper equilibrium, it is all that is requisite; he should not lose that boldness and freedom of action, which is generally so much admired, and so necessary, in the different duties that a military rider is called upon to perform." We are glad to be enabled to state, on such high authority as that of Colonel Peters, that the exercise of the manège is by no means necessary to the education of the horse, for any purposes which require his being trained in the school, as it is impossible to read the instructions of the masters of that art, as practised so generally at one time, without being satisfied, that the greatest severity must have been resorted to in their lessons. It is a maxim in horsemanship, and a good one, "that a horse must never do any thing of his own head, but in obedience to his rider;" but to call upon him to force himself into the unnatural positions which the *Manège d'Ecole* requires, is, in our opinion, labour very ill bestowed; and as for the gracefulness of his action, so much insisted upon by the manège-riders, we think it is never more fully displayed by him than when nearly in his natural state. There is, however, we admit, something pleasing in the associations of the horse highly caparisoned, as well as the airs of the manège, with grand and imposing spectacles; and there are several passages in the third Georgic of Virgil, which shew that the manège was found out earlier than many persons may imagine.

Not only is good horsemanship well suited to the pith and nerve of the English character, but it has always been considered as one of the corporeal accomplishments of a gentleman. Thus Clarendon, in his character of the Duke of Newcastle of his day, says of him, that "he was a very fine gentleman, active, and full of courage, and most accomplished in those qualities of *horsemanship*, dancing, and fencing, which accompany a good breeding; in which his delight was." But there are other than mere personal advantages attending good horsemanship. It is the habitual contempt of danger that ennobles the profession of the soldier; and horsemanship, as practised in England at present, and with the *esprit de corps* of the several hunts, tends much to the same end. Those who pursue it in the field, learn to expose themselves to danger with less reluctance, are less anxious to get out of it, or given to lose their presence of mind when in it, than persons whose pursuits have been of a different turn; in fact, it may be said to increase natural courage. Such persons, again, as merely ride on horseback for exercise, find in it the great preservative of

health. Nay, more than this, persons of tender constitution have surmounted the weakness of their nature entirely, by horse-exercise and hunting; in proof of which, many cases could be quoted. The following, of a patient of the celebrated Dr Sydenham, is perhaps as conclusive as any other:—A gentleman, a relation of the Doctor's, who was brought so low by consumption, that there appeared to be no possibility of a recovery by medicine, was induced by him to try horse-exercise, and a journey to his native country. On leaving London, he was so weak as to be lifted on his horse, and was refused admittance to the first inn he stopped at, being supposed to be in a dying state. Notwithstanding, he persisted in riding, by easy stages, to Exeter, and gained so much strength by the way, that though one day his horse lay down with him, in some water, and he was forced to pass many hours in his wet clothes, he not only sustained no harm by the accident, but arrived at Exeter greatly recovered. Thinking he had gained his point, he left off horse-exercise, and had a relapse; but, on betaking himself again to the saddle, he obtained a perfect recovery. Nimrod, in one of his hunting tours, says, "My time was almost divided between my saddle and my bed; but I never knew what it was to be fatigued when I lived temperately, and went early to rest. Indeed, such a life bade defiance to disease. A celebrated physician of the last century used to recommend riding on horseback to his patients. 'Live,' said he, 'in a saddle.' That riding is the most wholesome of all exercises, I have little doubt. Despite of all the vile stuff that finds its road down his throat, who ever heard of a bilious post-boy?" To this might be added, the no small advantage a person mounted on horseback derives, from breathing a purer air than when on foot, and consequently nearer to the ground. The salutary effect of the motion of a horse, also, on a sluggish or diseased liver, is acknowledged by all medical men.

We shall now take a view of horsemanship in the only forms in which it is at present applied to any useful or pleasurable purposes; namely, military, hunting, racing, and on the road, leaving the art of instructing horses for the Circus to those who find it profitable to fit them for it, which we admit they do to very great perfection, though we fear not without the necessary privation and punishment unavoidable, we believe, in such kind of instruction; or, in other words, in making animals perform far more, we conceive, than the Creator of them ever intended they should perform.

The military seat approaches nearer than any other to that of the manège; and, by reason of the horse-soldier having, in general, but one hand to hold his bridle with, is one which gives him great command over his horse, without disturbing his seat. He sits well down in his saddle, on his fork, or twist, with his body erect, and in perfect equilibrium with his horse; his legs well stretched down the sides, with a firm pressure of the calves, as well as of the knees and thighs, and the feet firm in the stirrups. But it is not by any one of these aids that he becomes a good horseman. He must be in perfect unison, as it were, with his horse's actions and paces, to maintain a good and graceful seat; and, in proportion to the just balance of his body, will he be able to have a steady hand, a point of vast importance to the dragoon. The importance of this balance, and keeping-himself in a proper equilibrium with his horse, is increased by the fact of his not being allowed to rise to the horse's trot, and therefore requiring a still finer use of the bridle hand. "The man who rides with the aid of the proper equilibrium," says Colonel Peters (p. 234), "will, in case of necessity, know when to apply the strength he has retained with a steady, light hand, and govern every motion according as he finds it necessary for his purpose; play light with his own weight upon the saddle (by a gentle spring in the instep of both feet on the

Horseman-ship. stirrups), with an easy pressure of both thighs, knees, and calves of the legs. When the horse jumps or plunges, then these aids are also requisite to keep the seat; but, in an easy, steady pace *forward*, it is most particularly to be pointed out to a young man, and cannot be too often repeated, that, to become an easy, elegant, or proper horseman, he must learn to ride with comfort and pleasure to his horse as well as to himself; he must learn to seek his balance from his hip upwards, to keep the body with a slight inclination backwards from the perpendicular, and balance himself thus gradually on his horse in all the different paces; which, of course, cannot be expected all at once. A man that rides by the force of his knees alone, shaking his arms and hands, although he rides his distance in the same period of time that the good rider would, yet he cannot be said to ride his horse, or to have any part of his body in the proper equilibrium; but the man who rides his horse with a light, steady hand, and elastic body (which, when disturbed even, has the power of restoring itself to its former seat), in unison with the horse's action, may be truly said to ride in the proper equilibrium."

It would much exceed the limits of this article, were we to enter into the detail of the military riding-school; neither is such a task necessary, from the number of works that have been published on the subject, and also from the various changes in the system that are perpetually occurring, according with the fashion of the day. We shall proceed, then, at once to the general principles of horsemanship, as applicable to the road, the hunting-field, and the race-course, commencing with the road.

The act of mounting may be called the first step in practical horsemanship. With horses perfectly quiet, it matters little in what manner we approach them; but in every thing that relates to horses, a certain precaution is necessary. Let the person who is about to mount, then, walk up to his horse, not directly in his face, lest he may alarm him, nor behind him, lest he may strike at him, which he would thus give him an opportunity of doing. Let him rather approach him on the left side, over against his shoulder, inclining something more to his head than to his flank. In the summer time, when the flies are troublesome, this caution is not ill bestowed, because the quietest horses will sometimes strike out, sideways, after the manner of cows, to rid themselves of their tormentors; and many a man has been injured in the abdomen, or thigh, from this cause. Old writers on horsemanship recommend the horseman, when about to place himself in the saddle, after having put the left foot firmly into the stirrup, to take the reins and the pummel of the saddle in his left hand, and laying his right hand fast upon the hinder part of the saddle, thus to spring into his seat. We should prefer his taking a lock of the mane, together with the reins, into the left hand; because, if he be a man of any considerable weight, his having recourse to the saddle for all the assistance he may require, would be very likely to displace it, especially as no horse in the hands of a good horseman is now tightly girthed.

When he is mounted, the proper adjustment of his reins is the next thing to be attended to. If a single-rein bridle, he has nothing to do but to draw the reins with his right hand through his left, till he finds he has got hold of his horse's mouth equally on both sides of it, when he shuts the left hand, letting the little finger separate the two reins. The same should be done with a double-rein bridle, only observing, as they are drawn through the hand, that the horse's mouth is to be consulted, as to whether that attached to the bridoon or to the bit is the one required to be first acted upon. Many an inexperienced horseman has met with accidents from want of a proper discrimination as to the right use of the reins, when mounted on high-spirited horses, with finely made, that is to say, highly susceptible,

mouths, and unused to a rough hand. The bridle reins should be held at a convenient length; for, if short, they will discompose the attitude of the body, by pulling the left shoulder forward; and they should be held with a firm grasp, dividing them, as before mentioned, with the little finger. When a horse pulls at his rider, he should advance his arm a little, but not the shoulder, towards the horse's head, raising his hand towards his breast, and the lower part of the palm rather than the upper; but he should not shorten the rein in his hand, if he can command his horse without it, or he may lose the proper *appui*, or bearing of his mouth. Old writers recommend the bridle-hand to be held perpendicular, the thumb being uppermost, and placed on the bridle. Modern practice is in favour of the knuckles being uppermost. The perpendicular hand may do very well in the school, or with the severe bit of the highly-drilled dragoon horse; but no man could ride a free-going race-horse over a course, or a hasty hunter over a country, in that form.

In dismounting a horse, the bridle and mane should be held together in the left hand, in the same manner as in mounting. Unless the horseman be very active, he may put his right hand on the pummel of the saddle, to raise himself, previously to throwing his right leg back over the horse; when, by grasping the hinder part of the saddle with the right hand, he lets himself down with ease. The right leg, however, should not be bent at the knee, or the spur may strike the horse's side, in the act of being thrown backward.

The first step towards perfection in a horseman, is to know and to feel how his horse is going; but this must be the result of some practice and experience. A horse may not only gallop false, that is to say, if going to the right he leads with the left leg, or, if going to the left, he leads with the right; but he is at times what is called disunited, that is, he leads with the opposite leg behind, to that which he leads with before. In both these cases, either in the school, or in his exercise, he must be stopped, and put off again properly. The method of effecting this, is by approaching your outward leg, and putting your hand outwards; still keeping the inward rein the shorter, and the horse's head inwards, if possible; and if he should still resist, then bend, and pull his head outwards also; but replace it again, bent properly inwards, the moment he goes off true. A horse is said to be disunited to the right, when going to the right, and consequently leading with the right leg *before*, he leads with the left leg *behind*; and is said to be disunited to the left, when going to the left, and consequently leading with the left leg *before*, he leads with the right leg *behind*. A horse may at the same time be both false and disunited; in correcting each of which faults, the same method must be used. He is both false and disunited to the right, when, in going to the right, he leads with the left leg *before*, and the right *behind*; notwithstanding that hinder leg be with propriety more forward under his belly than the left, because the horse is working to the right. And he is false and disunited to the left, when, in going to the left, he leads with the right leg *before*, and the left *behind*; notwithstanding, as above, that hinder leg be with propriety more forward under his belly than the right, because the horse is working to the left. A horse will also occasionally both trot and walk false.

Although the foregoing remarks apply principally to the working of a horse in a circle, or in the school; yet, as all horses will occasionally get disunited in their action, when going straightforward, it is very necessary that horsemen should know when they become so, and be able to set them right. Such action is extremely unpleasant to the rider; and likewise so much so to horses themselves, that they will not continue in it long, but generally quit it of their own accord.

Horseman-
ship.

The Seat.—It was well observed by Don Quixote, in one of his lectures to Sancho, that the seat on a horse makes some people look like gentlemen, and others like grooms. But a wonderful improvement has taken place within the last half century in the seat on horseback, of all descriptions of persons, and effected chiefly by the simple act of giving the rider a few more inches of stirrup-leather. No gentleman now, and very few servants, are to be seen with short stirrups, and consequently, a bent-knee, which, independently of its unsightliness, causes uneasiness to the horse as well as to his rider; whose knees being lifted above the skirts of the saddle, deprive him of the assistance of the clip, by his thighs and legs. The short stirrup-leather, however, was adopted with the idea of its giving relief to the horse, although a moment's consideration would have proved the contrary, and for this reason; the point of union between a man and his horse, as well as the centre of action, lies just behind the shoulder-blades, which, as must be apparent to every one, is the strongest part of the horse's body, and where the sack of wheat or flour is placed by the farmer, or the miller. With short stirrup-leathers, the seat of the rider is thrown further back on the saddle, instead of being exactly in the centre of it, and consequently his weight thrown upon the part approaching the loins, the weakest part of the body, and very easily injured. From the same mistaken notion was the saddle formerly placed nearly a hand's-breadth from the shoulders, which, of course, added to the mischief; but modern practice has entirely remedied this, as it is now placed as near as possible to the shoulder-bones, so as not to interfere with the action of them.

Next to the advantages of a good seat to the horse, stands the ease and elegance of it in the rider. In the first place, what is natural is easy, and there must be no formal stiffness of the body of a man, or of a woman, who wishes to look well on horseback. When we see a man sitting as upright as if he were impaled, and his body not appearing to yield at all to the motion of his horse, we cannot fancy his having a good hand upon him, because he cannot be in unison with him in his action; neither can he be firm in his seat. But to some persons a good seat is denied by their shape and make. For example, a man with short legs with large calves, and very round thighs, cannot sit so close to his saddle, as another whose legs are thinner and longer, and of course yield him a firmer clip; and whose thighs, instead of being round, are hollowed out on the inside, as we see in the form of our most eminent jockeys. The seat of the short-legged, large calved, round-thighed man, has been jocularly termed the "wash-ball seat," and not inaptly neither, for, like a wash-ball in a basin, he is seldom at rest in his saddle, from the absence of a proper clip. The thighs, in fact, are a most essential part of the horseman in giving him a good, graceful, and strong seat, as on the form of them depends greatly the good or bad position of the knee, which is a point of the utmost importance, not only to the eye, but to the firmness of his seat. The thighs, in fact, should be applied to the saddle and to the sides of the horse, chiefly by their inner surfaces, or the knees and toes would be too much out; and although the line is by no means required to be perpendicular, yet the shoulder, the hip, the knee, and the foot, should not deviate too far from it, to render a seat perfect. When this is the case, we may be certain the disposition of the thighs and legs is correct, as they will hang down sufficiently straight, and without force or restraint; which can never be the case, unless the body of the rider is placed evenly on the saddle, opening his knees a little, whereby his fork will come lower in the saddle, giving him the appearance, as Shakspeare expresses it, of being "incorpsed and demi-natured with the brave beast."

The position of the foot of the horseman is material both to comfort, safety, and elegance. In the old style of rid-

ing, the heels were turned outwards, which, of course, Horseman- threw the toes inwards, and very near to, as well as paral- ship. lel with, the shoulders of the horse; but this is all wrong. The toes should be turned a little outward and upward, which the slight opening of the knee induces. No animal, human or brute, can look well, or exert its strength well, with toes turned in, and the position is contrary to every thing approaching to elegance.

The position of the foot in the stirrup, however, varies with the pursuits of the horseman. The soldier always, the rider for pleasure, or on the road, generally, rests on the ball of the foot, with a gentle play of the instep. But the man who rides after hounds, and the jockey when he rides a race, find it necessary to have the foot more home in the stirrup, with the toes turned a little upward, as well as a little outward. The advantages of all this are twofold. First, it gives them more power over their horses, by furnishing them with a more substantial fulcrum; and, secondly, to the man following hounds, it is a great security against the foot being chucked out of the stirrup, by the seat being disturbed in a leap, or from any of those causes which perpetually occur in crossing a country.

Great as has been the alteration for the better in the seat of Englishmen, in general, by increasing the length of the stirrup-leathers, and thereby placing them more properly in the saddle; yet, in the schools of the military this system has been said to have been carried too far, so as to endanger the safety of the rider. Indeed both Hippocrates and Galen speak of a disease which, in their time, was occasioned by long and frequent riding, with the legs hanging down without any support, stirrups then not being in use. How it happened that an advantage so obvious was so long in being made available, is not for us here to inquire; but we consider the support of the stirrup to be the *sine qua non* of the management and services of the saddle horse, for all essential purposes. Nevertheless its most essential use is confined to Great Britain alone, and that is, in enabling the horseman to rise in his saddle to meet the action of the horse in his trot, by which means a pace, otherwise most disagreeable and fatiguing, is rendered nearly the pleasantest of any. So long as the demi-pique saddle was in use, in which the horseman was so deep-seated, and trussed up as to make falling almost impossible; and he rode, as Sir Walter Scott made King James to ride, "a horse keeping his haunches under him, and seldom, even on the most animating occasions of the chase, stretching forward beyond the managed pace of the academy;" pressure on the stirrup might have been dispensed with, but with the saddles of the present day, and the more natural action of the horse, we consider it quite indispensable. It is indeed to the disuse of this practice in France, and other parts of the Continent, where rising in the stirrups is never resorted to even on the hardest trotting horses, that is to be attributed the almost rare occurrence of persons riding any distance, or at a quick rate, for pleasure. To this peculiar system in our horsemanship also are we indebted for our rapid style of posting, as without it post-boys could not endure the fatigue the action of a horse creates, especially in hot weather, over a fifteen miles' stage, at the rate of ten or twelve miles an hour, without a moment's intermission; whereas, by means of it, he performs that task with comparative ease and comfort. The objection to it on the part of foreigners lies in the fancied inelegance, if not indecency, of the motion, which we consider not worthy of an argument; but of this we are certain, that what is called "riding hard," that is, *not* rising in the stirrups, in the trot, nor leaning any weight upon them in the gallop, or canter, must be extremely distressing to horses, and especially to such as carry high weights.

Previously to our describing the various kinds of seat, it is necessary to observe, that how well soever a man may

Horseman-ship. be placed upon his horse, his performance upon him will mainly depend on the use he makes of his hands. It is on this account that old writers on horsemanship have dwelt upon the difficulty of the art, rendered more so, in their time, when the airs of the manège formed part of it. The fact, however, is notorious, that not more than one man in a hundred of those who have been riding horses all their lives, has what is called "a good hand upon his horse," much less a fine one, which falls to the lot of but few. When, however, we consider first, that the hand of the rider is to the horse what the helm is to the ship, that it guides his motions and directs his course; and, secondly, that we have recourse to a severe and cutting instrument, acting upon so sensible and totally unprotected a part, as the *natural* mouth of a horse must be, it is at once apparent, that not only a fine hand, with an easy bit, must be most agreeable, and, at the same time, most serviceable to the horse, in any thing he is called on to perform, but that it constitutes the very essence of fine horsemanship. It has been before observed, that a horse's ear has been figuratively said to lie in his mouth, and no doubt he receives the instruction from his rider chiefly through that medium. How material, then, is it that it should be conveyed to him in a manner in which he is not only most likely to understand it, but in one the least disposed to irritate him? How often have we seen a horse fractious and unpleasant both to his rider and himself, when ridden by an indifferent horseman (allowing him even a good seat) but going placidly and pleasantly when mounted by another with a low and fine hand, which appears to sympathize with all his motions, and all his wishes. It is here that Art becomes the handmaid of Nature; and it is the assistance which it is in the power of a jockey with a fine hand to give a horse, which alone exhibits the superiority of one horse over another *in himself* equally good.

Whence this superiority of hand arises, it is very difficult to determine, particularly as it is so frequently apparent in men possessing equally good seats on their horses. From the well-known fact that it is an accomplishment, which in thousands and ten thousands of cases never can be acquired by the practice and experience of a long life, we may almost consider it to be, like the poets, an *ex re nata* property in the human composition, and thus sought for in vain by those to whom nature has denied it. That it is intimately connected with the nervous influence of the touch is obvious, from its being the result of the action of the hand and arm; and it is in being delicately alive to every motion of the horse, that the excellence of a good hand consists. That it is associated with the good or bad state of the digestive organs, is proved by the necessity all persons find, who are called upon to excel in horsemanship, of living temperately, and keeping early hours. That it is the greatest security to the horseman, under all circumstances in which he can be placed, is also shewn by the numerous instances we meet with, of some persons being enabled to ride horses over every variety of ground, and in all paces, with security; but which, with others not equally gifted, are constantly getting into scrapes, either by falling on the road, running into fences in the field, bolting out of the course in a race, or falling backwards when rearing, which latter accident arises, in most cases, from a rough, unskilful hand.

Seat on the Road.—Of the various, and too often fatal accidents that occur to horsemen, the majority occur on the road. The reason of this is obvious. They are generally, with the exception of cases of inebriation, the result of horses running away with their riders, and either coming in contact with something in their course, which suddenly stops their career, when either one or both are thrown headlong to the ground. Accidents of this description are very frequently attended with the most serious consequen-

ces, and shew the necessity of persons who get on horse-**Horseman-ship.** back being capable of commanding their horse. Next come accidents from horses falling, which are often attended with fracture of limbs, if not loss of life, chiefly, perhaps, from the hard nature of the ground on which the horse and his rider are thrown; for, if a twentieth part of the falls sportsmen get in the field, their horses so frequently falling upon them, were to occur upon hard ground, the danger in hunting would put a stop to it. Falls from horses starting only happen to persons who have a loose seat, and such should ride none but horses free from that fault. But the greatest safeguard on the road, next to a firm seat, is derived from the hand of the rider, who should never trust himself entirely to his horse, however safe he may consider him. He may tread on a rolling stone; the ground may give way from under him; he may step into a hole; or, by the effect of sudden alarm, he may lose the centre of gravity, and then, in all or either of these cases, the fall is worse, by reason of his getting no assistance from the rider, which he may have looked for, until past recovery, when he comes to the ground with a crash. We therefore recommend persons who ride the road, always to feel their horses' mouths lightly, by which means not only will the proper equilibrium be sustained, and they will be carried better for it; for, observe, a horse with a weight upon his back, and one without a weight upon his back, are by no means in relative positions, but, should a false step be made, the aid of the rider being *instantly* at hand, is nearly certain to recover him. By which rein the mouth should be felt, supposing the bridle to consist of a bit and a bridoon, must depend on the sensibility of it, although by changing the pressure from one to the other, the mouth is kept fresher and more lively than when one only is used, and especially if that one should be the bit. There is a certain, but not a large, proportion of horses, that are rideable for all purposes on the snaffle only, whose mouths are generally kept fresh by the light pressure they receive. These are perfect mouths; but, nevertheless, horses that have them in this perfection, should not be left quite to themselves in any one pace.

Previously to the general use of stage coaches, which are now to be found in abundance upon all roads, road-riding was much more in use than it is at present; and immense distances were travelled over in a day by graziers, horse and cattle dealers, racing jockeys, and others, whose habits of being so much on horseback rendered them superior to fatigue. A hundred miles, from sun-rise to sun-set on the same horse, was no uncommon day's work, and this when the roads were in a very different condition from that in which they now are, abounding in ruts and quarters, so that horses were travelling over half their ground, either on a narrow ridge, between two ruts, or over loose unbroken stones; and these were the days in which really good roadsters fetched large prices, as only horses with very good legs and feet could stand fast work long, or be depended upon as to safety. But all modern feats of men on horseback, or indeed the feats of any other period, on the authenticity of which we can rely, retire into the shade before that performed in the year 1831, by George Osbaldeston, Esq. of Hummanby Hall, Yorkshire, over Newmarket Heath, who rode two hundred miles in nine hours and twenty minutes, winning his Herculean match with forty minutes in hand. As may be supposed, he was not restricted to the number of horses, which consisted of thirteen, then in training on the heath; but he rode one of them, Mr Gulley's Tranby, by Blacklock, sixteen miles, at four four-mile heats. Mr Osbaldeston, also celebrated for his bold and judicious riding to hounds, appeared very little fatigued; and, after the use of the warm bath, and a short repose, joined in the festivities of the evening, and did not retire to rest till an hour after midnight.

Horseman-
ship.

An easy seat in the saddle is very important to persons who ride many hours in succession on the road. To accomplish this the following rules should be observed:—To sit well down in the middle of the saddle, with just that length of stirrup leathers that will allow of the fork clearing the pommel of the saddle; for a greater length than this would add to the fatigue of a journey, and lessen the rider's command over his horse. On the other hand, short stirrup leathers create fatigue by contracting the knees, and thereby adding to the exertion of rising to the action of the horse in the trot, which should chiefly proceed from a gentle play of the instep. The body of the rider should incline forwards in the trot, as, by forming a proper counterpoise, the movement of the horse is facilitated; and, above all things, steadiness of seat is required, or the latter will be much incommoded in his action. So distressing, indeed, is a swaggering unsteady seat, that it is a well established, though not a universally known fact, that horses will carry some persons of considerably greater weight than others, long distances on the road, or over a country in hunting, with less fatigue to themselves, solely because they ride them with a firm seat and an easy hand. In a long day's journey on the road, great relief is given to a horse by now and then dismounting from his back, and leading him a few hundred yards; as also by frequent sips of water, particularly if the weather be hot. As to *frequent* baiting of a hackney in a day's journey, the practice is not recommended. In a journey of sixty miles, he should only be stopped once, but then it should be for at least two hours, during one hour of which time he should be shut up in a plentifully littered stall. It is well known that a horse in good condition would perform this distance without hurting him, if he were not baited at all, but we are far from recommending the practice. Short stops, however, on the road are injurious rather than beneficial, and teach horses to hang towards every public-house they pass by, in their journey.

Most horses should be ridden in double reined bridles long distances on the road, and all should be ridden with spurs. Should they flag, or become leg-weary towards the end of a day, the use of the curb may be the means of avoiding falls; and, by the gentle application of the spur, a sort of false, that is, more than natural, action is created, which will have the same beneficial effect. As to the rate at which horses should be put on the road, that is a point so much under the control of circumstances, that no line can be drawn respecting it; but our experience assures us, that if a horse has to perform the distance we have already taken as a fair day's work, namely, sixty miles, under not a very heavy man, he would perform it with more ease to himself, and feel less from it the following day, if he travelled at the rate of seven or eight miles in the hour, than less. In the first place, this rate of speed is no great exertion to a horse of good action, and also in good condition; and, in the next, by performing his day's work in less time than if he travelled slower, he gets sooner to rest, and is, of course, sooner fit to go to work again. Let it, however, be observed, that he should have two hours quiet rest in the middle of the journey, which will enable him to perform it without fatigue. But we do not recommend this rate of travelling, when a much greater extent of ground is before us. If a horse is to be ridden two or three hundred miles or more, he ought not to travel, in the best of weather, more than from thirty to forty miles per day, and he should rest the entire of the fifth day, or he will become leg-weary, hit his legs, or perhaps fall. We are of course alluding to valuable horses, with which extra expense is not to be put into the scale against the risk of injuring them. The earlier, travelling horses, in the summer particularly, start in the morning, the better, that they may get their day's journey over in good time, and be early shut up for the night.

The following good advice to persons riding on the road Horseman-
ship.

is very much to the purpose (see *Ency. Brit.* p. 624):—“When you ride a journey, be not so attentive to your horse's nice carriage of himself, as to your encouragement of him, and keeping him in good humour. Raise his head; but if he flags, you may indulge him with bearing a little more upon the bit than you would suffer in an airing. If a horse is lame, tender-footed, or tired, he naturally hangs on his bridle. On a journey, therefore, his mouth will depend greatly on the goodness of his feet. Be very careful, then, about his feet, and not let a farrier spoil them.” To this we add, that, as has been already observed, horses often fall on the road, from the state of their shoes being neglected; in journeys, and on hot and dusty roads especially, the feet as well as the shoes demand care. They should be stopped every night with moist clay, or what is better, wetted tow, which, whilst it cools and moistens the foot, acts beneficially, by causing pressure to the sensible sole and the frog.

The Hunting Seat.—Next to that of a jockey, on whose skill in the saddle thousands of pounds may be depending, the seat of the fox-hunter is most essential of any connected with amusement. He must not only be firm in his saddle, to secure himself against falls when his horse is in the act of leaping, but he must unite with a firm and steady seat a light and delicate hand, to enable him to make the most of his horse, as well as to preserve himself as much as possible against danger. His position in the saddle should resemble that which we have recommended for the road, with the exception of the length of his stirrup leathers, and the position of his foot in the stirrup irons. The former, the length of stirrup leather, should depend on the form and action of his horse, as well as the nature of the country he has to ride over. With a horse very well up in his forehead, with his haunches well under him, and going perfectly collected and within himself, his stirrup leathers may be long enough to admit of the knee being very nearly straight, and the foot resting on the ball. But, on the other hand, if his horse be somewhat low in his forehead (which many first-rate hunters are), with very powerful action in his hind-quarters; if ridden in hilly countries, or if at all disposed to be a puller, he will require to be at least two holes shorter in his stirrups; and his foot will be firmer if placed “home” in them, instead of resting on the balls. Above all things, he must acquire a firm, close, and *well-balanced* seat in his saddle, which is not merely necessary in leaping, but in galloping over every description of ground. A swaggering seat in the last mentioned act is sufficiently bad to make a great difference to a hunter in a severe chase; but when we picture to ourselves a horse alighting on the ground, after having cleared a high fence, and his rider alighting two or three seconds afterwards in his saddle, so far forward, perhaps, as to fall beyond the pillars of support, or backwards behind the centre of action and the part (just behind the shoulders) which ought to form the junction between the rider and his horse, we can readily imagine how distressing it must be to him, and how much a large fence, so taken, must exhaust him over and above what would be the case if he had had the assistance of a firm hand to support him on alighting; but which, however, with such a seat as we have been describing, no man can possess. The first requisite, then, for a person who follows hounds is the combination of a light hand with a firm seat; and fortunate is it for his horse, as well as for himself, if he possess it to the degree required to constitute a fine horseman, over a country.

But as the science of war cannot be learned perfectly by any thing short of experience in the field, neither can the art of horsemanship, as far as the sportsman is concerned, be learned perfectly in the riding-school or the academy. If our own observation did not confirm this fact, it would ap-

Horseman-ship. pear evident, from the variety of situations in which the man following hounds may be placed, in one individual run; and we will endeavour to enumerate them. First, there is galloping at very nearly full speed, not over turf as smooth as a carpeted floor, and with nothing beyond a daisy's head to come in contact with the horse's feet, but (*cursu undoso*) over every description and every variety of ground; over the high ridge and across the deep furrow; over ground studded with ant-hills, which, unlike the mole-hill, are often as hard as if they had been baked in an oven; over stones and flints, the latter so sharp as frequently to sever the sinews of a horse's leg so completely as to cause his toe to turn upwards, when his throat must be cut on the spot; over grips covered by weeds, and thus, if visible to the horseman, too often invisible to his horse; over deep under-drains, with rotten coverings, which frequently give way, and let in a horse nearly to his shoulders; down steep hills, stony lanes, through deep sloughs and treacherous bogs; and all this very frequently on infirm legs, as those of hunters which have been long in work are very apt to be.

Next come the "fences," as all obstacles to the follower of hounds are now technically termed; and let us just see of what they are composed. There is the new and stiff gate, with always five, and sometimes six bars, and each bar, perhaps, as firm against the force or weight of a horse and his rider as if it were made of wrought iron. Then there is the nobleman or gentleman's park-paling, full six feet high, and too often a turnpike road on the other side to alight on. The stiff four-barred stile, generally to be taken from a narrow and slippery foot-path, and not unfrequently on the declivity of a hill. The double post and rail fence, as it is called, too much to be cleared at one leap, in which case the horse has to leap the second rails from the top of a narrow bank, and sometimes from out of a ditch which is cut between them. Every now and then, in the rich grazing countries, which are far the best for hunting, and in which hounds run faster than in others, there is the ox-fence, which may thus be described: If taken from one side of it, there is, first, a ditch, then a thick and strong black-thorn hedge, and about two yards beyond it, on the landing side, is a very strong rail, placed to prevent feeding bullocks from running into the hedge, to avoid the cestrum, or gadfly, in the summer. This fence, covering a great space of ground, must be taken at once, or not at all, from either side on which it is approached. In these countries, from the goodness of the land, the black thorn attains great strength; but in places where it happens to become weak, instead of the ox fence, four strong rails are put, which, in addition to the ditch, makes also rather an awful fence; at least, if a horse do not clear it, he must fall, as the rails very rarely will give way. Some of these hedges being impracticable, from their thickness, the sportsman makes his way to one corner of the field, where he finds a flight of very high and strong rails, but without a ditch, and every now and then a sheep-fold. The former is somewhat of a more severe fence than it appears to be, owing to the ground on each side of it being either poached by cattle, or, what is worse, rendered slippery by sheep, which are driven into the corner to be examined by the shepherd, in the case of there not being a sheep-fold in the field. The sheep-fold, or sheep-pen, as it is called in Leicestershire, is a still more serious undertaking. To get into it, the horse must leap four strong bars, about the average height of gates, and then, with a very short space to turn himself round in, must do the same thing to get out of it. Next comes the brook, from twelve to twenty feet in width, often bank-full, and sometimes overflowing its banks, which are often hollow, and generally rotten. In most of our best countries, few runs of extent take place without a brook, or brooks, being to be crossed; and no description of obstacle to which the

sportsman is subject in crossing a country is the cause of Horseman-ship. so many disasters.

In what are termed the Provincial Hunting Countries, in contradistinction to Leicestershire, and the other chiefly grazing countries, timber, with the exception of stiles, is not so frequent, nor is the ox-fence to be seen at all; but there is comparatively more fencing, though chiefly hedges and ditches. In many of these, Dorsetshire in particular, the fences are generally what is termed double; that is, there is a ditch on each side of the hedge, which it requires a horse to be prepared for, by receiving, if not his education, a good deal of instruction in the country. In other parts of England, Cheshire and Lancashire, for example, we find fences that require an apprenticeship. They consist of a hedge and ditch, not of large dimensions, but in consequence of the former being planted on a cop, or bank, a horse must land himself on the cop before he can get his footing to clear the fence, provided the hedge be on the rising side. Were he to spring at it from the level of the field, and clear the bank, together with the hedge and ditch, the exertion would be so great as soon to exhaust his powers. Those fences require horses very active and ready with their hinder legs, and also riders with good hands. In all strong plough-countries, as our fine loams and clays are termed by sportsmen, hedges with ditches (for the most part only one ditch) prevail. For height and width they are not equal, by much, to those of the grazing districts, but circumstances render them equally difficult and trying to the skill of a horseman, and the judgment of his horse, and oftentimes still more so. In the former, although the fence is large (brooks excepted) the ground on the rising side is almost always sound and firm; whereas in deep plough-countries it is generally soft, and often, what is worse, it is sticky. Neither is this all. It very often happens that the headland of a field is ploughed to within a foot or two of the ditch, when a small ridge, or "balk," as it is termed in some districts, is left to prevent the soil of the field washing into the ditch. This ridge is often very perplexing to the horseman. He must either put his horse at the fence so as to clear all at once, or he must let him take his footing from off this narrow ridge, which, if his head be not in a very good place, and his rider's hand an indifferent one, makes even a small fence dangerous. The objection to a ploughed country also holds good as regards the other, the landing side of the fence. In the grass countries, a horse alights on turf sufficiently elastic to break the concussion from the weight of himself and his rider, but seldom soft enough to sink him below his hoofs. On the other hand, in the ploughed districts, he is perpetually alighting in fallowed ground, or in that sown with wheat or other corn, which, particularly after a severe frost, is so far from being firm enough to bear his weight, that it sinks him nearly to the knees. This is very distressing, especially to a horse which carries a heavy man; and here the skill of the rider is shewn in his preventing his jumping at fences of this description, higher or farther than is absolutely necessary to clear them. To a man who follows hounds, indeed, this art of handing his horse easily over fences, is one of the very highest value; and to the possession of it, to perfection, is to be attributed the extraordinary performance of hunters under some of our heaviest sportsmen, such as Mr Edge and his brother, Mr Richard Gurney, Sir Bellingham Graham, Mr Maxse, Lord Alvanley, and others, in fast runs of an hour or more, over strongly inclosed countries.

Walls are, we believe, the only fence met with in Great Britain which we have as yet left unnoticed. They are of two descriptions, namely, fast, by means of mortar, and loose, being built without mortar. The first do not often come in the way of the sportsman; and it is well that they do not, for, in the event of a horse striking them, they do not yield

Horseman-to his weight. The last, the loose walls, particularly those met with in Gloucestershire and Oxfordshire, are the least dangerous fences he can ride at; for, unless his horse be blown, or he is himself a very powerless horseman, they seldom resist him sufficiently to throw him down. Their height varies from three to five feet; but as there never is a ditch on either side of them, and the ground is generally firm in the parts of those counties which are inclosed with walls; those even of the last-mentioned height may be taken with safety by a good horseman, on a horse that is accustomed to them, and is not distressed at the time by the pace; for, as "*it is the pace that kills*," so is it the pace that causes falls.

The following directions may be serviceable to a young beginner in the hunting field:—When hounds find and go away, place yourself well down in your saddle, on your fork, or twist, and don't be standing up in your stirrups (as formerly was the fashion, and the cause of many a dislocated neck), sticking out your rump as if it did not belong to you. Let your knee be not very far from straight, with your foot well out in front of it, and feeling in the stirrup as if it formed a sufficient fulcrum for your bodily strength to act upon, in the assistance your horse may require from you. Be assured that the military seat, with the very long stirrup leathers, will not do here, however graceful it may appear on a parade. There must be a kind of *obstando* power in the rider, to act against the preponderance of his horse, particularly at what are called drop-leaps, in very deep ground; or, in case of his making a blunder, or getting into false ground, in his gallop. Having got well away with the pack, keep your head up, with your reins in the left hand, and your whip in your right, held perpendicularly upwards, with the thong falling loosely through your hand, when it will be ready for all purposes. Cast your eye forward, to take a view of the country, and then on the body of the hounds, to satisfy yourself that they are well settled to the chase. And now comes the young fox-hunter's trial. *You must neither take liberties with the hounds, nor with your horse.* Ride wide of, that is, on the left, or on the right of, the former, turning as you see them turn, and never find yourself exactly behind them, on their line; and no matter how perfect may be the latter, never trust him to himself, nor upset him by going too fast for him, or, in other words, over-marking him for pace. However good his mouth, never ride him in chase with quite a slack rein, for, independently of your own safety, it is not giving him a fair chance. He requires your support, and he should have it.

In riding to hounds, there is much to be gained by what is termed picking out your country. Avoid going straight across land highly ridged, and, consequently, deeply furrowed, if possible to avoid it, but rather take your line diagonally. If the furrows are very deep and holding, make for the side, or the head-land, where, of course, it is comparatively level ground. Even if it takes you a little out of your line, you will find your advantage in this, for you may increase your rate of going, and that with ease to your horse, more than equal to the extra distance you have to go. If your horse appear somewhat distressed, it is on a head-land, or still more on a long side-land, that you have a good opportunity of recovering him; and here you may have recourse to the old-fashioned style of riding a hunter. You may stand up in your stirrups, catching fast hold of your horse's head, and pulling him well together, when you will find, that, without slackening his pace, he has recovered his wind and can go on. Avoid deep ground as much as possible; but when in it, keep a good pull on your horse, and by no means attempt to go so fast over it, as you have been going over that which was sound. After Christmas, turnip fields should be skirted if possible; for, by reason of the many ploughings they receive at seed-time, the land sown with turnips becomes so loose and porous after severe frost, that it cannot carry a horse. Also

avoid *crossing* fallows, or land sown with wheat. If obliged to go athwart them, get on the head-land; or if you ride straight down them, choose the wettest furrow you can see. It is sure to have the firmest bottom, which is proved by the water standing in it.

As no man can say where a fox-chase will end, have an eye to your horse, and endeavour to give him all the advantages in his favour that the country and the pace will admit of. Next to a judicious choice of your ground, is quickness in turning with hounds, as the difference between riding inside and outside of them, in their turns (be it remembered hounds very seldom run straight) is very considerable indeed; and to a certain degree corresponds with what is called "the whip-hand" in a race. Again, if you wish to stand well with the master of the pack, and to obtain the character of a sportsman, observe the following rules:—Never press upon hounds, even in chase. When they have lost the chase, in other words, when they are at fault, pull up your horse and keep wide of them; and, in the words of a celebrated old sportsman, "*always anticipate a check*."

Never, for the sake of displaying your horsemanship, or your horse, take an unnecessary leap when hounds are running, nor a large one when a smaller is in your view, unless the latter take you too much out of your line, or for a reason which we shall presently give. If your horse is a good timber leaper, and not blown, prefer a moderate timber fence to a rough, and blind hedge-and-ditch fence, as less likely to give you a fall, neither will it take so much out of your horse. But when your horse becomes distressed, avoid timber, for if he do not clear it, he will give you a worse fall in that state than if he were quite fresh. A blown horse falls nearly as heavy as a dead one. There is, however, another precaution to be observed with horses a good deal beaten by the pace. Have an eye, then, rather to the nature of the ground on which it is placed, than to the size of the fence; that is, prefer a good-sized fence, where you see firm ground for your horse to spring from, to a small one where it is soft and sticky. Moreover, a distressed horse will often rise at a fence of some height and appearance, whereas he will run into, or, at all events, endeavour to scramble through, a small one. If you decide upon the smaller place, let him go gently at it, as he will be less likely to give you a fall; at all events, he may not give you so bad a one as if you went fast up to it. Some horses get out of scrapes better than others; but it is as well not to give them an opportunity of shewing their prowess in such matters.

A chief requisite to a good rider across a country is, courage, one of the most common qualities of human nature; and another is, coolness. No man, when flurried, can do any one thing well; but when we consider the variety of objects that the sportsman, following hounds, has to attract his notice, and the many obstacles he may have to encounter, it is evident that, according to the old adage, "he must have all his wits about him." The perfection of fine horsemanship in the hunting-field, then, is in a man riding well up to hounds, when going their best pace, over a stiff country, and yet appearing to be quite at his ease, and his horse, as it were, sympathising with him in his calmness. Such a man (and there are some such in every hunt, but not many) is capable of taking every advantage that can be taken of country, hounds, and all obstacles which appear to oppose him in his career. Another signal advantage to the sportsman also arises from his coolness in these moments of no small mental, as well as bodily, excitement and exertion. He is able to observe the beautiful working of the hounds, which is displayed to advantage with a burning scent; and he enjoys it the more, in consequence of the superiority of his horsemanship having placed him in a situation where he is not molested by the crowd.

Horseman-ship. The greater part of mankind, it is true, are endowed with a capacity for performing, and, to a certain degree, excelling in, the various exercises which have been invented for our amusement; but we have reason to believe, that out of the vast numbers of persons who attempt the apparently simple art of horsemanship, particularly that part of it which we have now been speaking of, there are fewer who arrive at perfection in it, than in any other with which we are acquainted. Luckily, however, for sportsmen, it is not in horsemanship as in the fine arts, which admit of no difference between distinguished success and absolute failure; and it is certain that there are more good and spirited riders to hounds at the present day, than were ever known since fox-hunting, as now practised, begun. And Englishmen may be proud of this; for although amongst the classical glories of antiquity, we hear nothing of leaping five-barred gates, twenty feet drains, and six-foot walls, after hounds, yet a daring horseman always found honour. Alexander the Great first signalized himself by subduing an unruly horse, which no man but himself dared to mount; and his celebrated general, Eumenes, was first noticed by Philip his father, on account of his skill in horsemanship and all public exercises. Neither are there wanting parallel cases in our own country, in which titles and honours have been conferred upon persons who might never have been known to him who conferred them, but for their possessing similar accomplishments.

Although speed in the hunter is now absolutely necessary, from the much increased rate of hounds, yet it is equally necessary, in most of our hunting countries, that he should be a perfect fencer as well, and that his rider should be an accurate judge of the extent of his fencing powers. Thus it often happens that horses, not equal in speed to others, get quicker over a stiffly-inclosed country than they do, because, by the means of their superior fencing, they are able to cut off angles and go straighter. In fact, there are frequent instances of one individual sportsman beating every other in the field, and being alone throughout a run, merely by clearing a great fence in the direct line of the hounds at starting; in avoiding which, so much ground had been lost by the rest of the field, that it could not be recovered by them until the chase was ended.

The effect of the exertion of leaping, in horses, is pretty accurately ascertained by the observation and experience of sportsmen; but some rather curious facts are drawn from them. A very large fence, as has been before observed, exhausts a horse, or, in the language of the field, "takes a good deal out of him;" nevertheless, a hunter becomes sooner distressed over quite an open country, when the pace is very severe, than he does over an inclosed one, provided the fences are not very large indeed. This is accounted for in two ways: First, fences check the speed of hounds, and consequently the speed of horses. Secondly, the mere act of pulling or gathering a horse together, to shorten his stride previously to his taking his leap, is a very great relief to his wind, as we know from the effect a good pull at his bridle, towards the end of his course, has on that of the race-horse. At several kinds of fences, likewise, it is necessary that he should be pulled up nearly, if not quite, into a walk, to enable him to take them with safety, such as fences by the sides of trees, hedges with ditches on each side of them, particularly if they are what is termed "blind:" in short, all places known in the hunting vocabulary as cramped places, as well as now and then a timber fence, which must be taken nearly at a stand. And it was the old system of taking all upright fences, such as gates, rails, stiles, and hedges without ditches, at a stand, that enabled the low-bred hunter of the early part and middle of the last century to live with hounds as well as he did live with them. The very short time that it takes for a horse to recover his wind, to a certain extent, might be

Horseman-ship. proved by a reference to stage-coach work. Previously to the perfect manner in which it is now performed, and the superior condition of the cattle, from their owners having at length found out how to feed them, it was not unusual for a coachman to have a high blower, as a thick or bad winded horse is called on the road, in his team, which might scarcely be able to keep time. If he found him distressed, he would pull up his coach on the top of a hill, and draw back the distressed horse from his collar. But how long would he keep him in this position? Why, not many seconds, before he would be sufficiently relieved to proceed. Thus the country of all others which puts the physical powers of horses to the greatest test in following hounds, is one which is hilly, and totally without fences, of which the Sussex South Downs, in the neighbourhood of Brighton, may be taken as a sample. Nothing but a thorough-bred horse, and a good one too, can live quite alongside hounds, going their very best pace, more than half an hour over such a country as this, and very few can do even so much, if they carry more than average weight. The open ploughed countries, such as great part of Wiltshire and Hampshire, are for the same reason very distressing to horses, and require them to have a great share of blood; but hounds do not, neither can they, run so fast over ploughed ground, as over old, or maiden turf, which the Sussex Downs are clothed with. In the first place, the scent is seldom so good; secondly, the ground is not only not elastic, which the other is, but it impedes the progress of hounds from two other causes; its surface is less even, and the soil of all ploughed land sticks more or less to the feet of hounds; or, in the language of the huntsman, it "carries" invariably after a slight frost on the previous night.

We now resume our advice to the young foxhunting horseman: It is the practice of all first-rate horsemen over a country to ride slowly at the majority of fences. For example, if the ditch be on the rising side, you may cause your horse to put his feet into it before he rises at the hedge, if you hurry him at it. Should the ditch be on the landing side, the case is somewhat altered, as the pace you ride at must be regulated by its width. If you have reason to believe it is of moderate width, do not go fast at the fence, because it will cause your horse to leap further than he needs to leap, and of course help to exhaust him. But if, when within a few yards of the hedge, going slowly at it, you perceive the ditch is a broad one, "put in some powder," as the modern sporting term is; that is, urge your horse by the hand and spur, and he will be aware of what you wish him to do, namely, to extend himself so as to clear a wide space of ground. If the ground on the landing side be lower than that on the rising side, causing what is called "a drop leap," or even if the ground be not lower, but soft or boggy, your horse will look for assistance from you on alighting, which you should give him by throwing your body back, having at the same time a resisting power from your stirrups. But another precaution is necessary when the ditch is on the rising side, or indeed with all fences except those (as will be hereafter named) which require to be ridden quickly at. This is, to fore-shorten the horse's stroke so as to enable him to gather himself together for the spring, or he may misjudge his distance, and get too near to his fence to rise at it. In fact, to judge accurately of the distance from the fence, at which the spring should be taken, is a great accomplishment in a man and a horse. In the former, it is the result of experience and a quick eye; with the latter, it is in great measure dependent on temper; and consequently violent horses, "rushing fencers," as they are termed, never perfectly acquire it. It is a serious fault in a horse to take his spring sooner than he need take it; and perfect fencers go close up to their fences before they rise at them, particularly to hedges when the ditches are on the landing side. Horses, however, of hasty tempers, particularly well-

Horseman- bred ones, with great jumping powers, cannot always be made to do so. Neither will they save themselves by walking into, or pushing through, places which do not require to be jumped; on the contrary, many otherwise excellent hunters will scarcely suffer a briar to touch their legs. A good bridle-hand here comes into play, more especially with horses who are rather difficult to handle, either from too fine a mouth, or a loose, ill-formed neck. It is difficult, however, to offer instruction here, as there ought to be an absolute interchange of feeling between the instructor and the instructed, to render them intelligible to each other; but we will endeavour to make ourselves understood:—When you approach a fence with a horse of this description, you should leave him as much to himself as you find it prudent to do, particularly when within a few yards of it. If you are obliged to check his speed, do so with as light a hand as possible; and if he shews a dislike to be much checked, by throwing up his head, or otherwise, drop your hand to him, and let him go. He has by this time most probably measured the fence by his eye, and it may not be safe to interfere with him.

Double fences, particularly with a horse not quite perfect in his mouth, and the setting on of his head, try the hand of the horseman. The first part of the fence, usually a ditch, may be cleared without any difficulty, and so may the second, if visible; but it often happens that neither horse nor rider is prepared for the second. Here it is that, in our opinion, lifting a horse is to be recommended, and in very few cases besides. Our objection to it arises from the horse being led to expect it; and if he do not get it at the critical moment, it may mislead him. In fact, it requires a hand nicer than common to make a practice of lifting a horse at his fences. Nevertheless, in the instance we have alluded to, the unforeseen ditch, it is useful; as also towards the end of a run, when a horse, from distress, is given to be slovenly at his fences, if not disposed to run into them. In leaping timber fences, we consider the attempt to lift a hunter dangerous; for a horse becomes a good timber-leaper from confidence; and if he finds he is to wait, as it were, for your pleasure for him to rise at a gate or a stile, he will be very apt to make mistakes.

We have already observed, that timber fences are the most dangerous of any, by reason of their general strength; if a horse strikes them with his fore-legs, or gets across them, as it were, by not being able to bring his hinder-quarters clear of them, they are nearly certain to cause him to fall. And he falls from timber in a form more dangerous to his rider than when he merely stumbles and eventually falls, by putting his feet into a ditch. In the latter case, his fore-quarters come to the ground first; and by breaking the force of the fall, the rider has time to roll away from him before he himself rolls over, should the violence of the fall cause him to do so. In the former, if the timber be strong enough firmly to resist the weight and force of a horse that strikes it with his fore-legs, especially if above the knees, the first part of his body which comes to the ground is either his back or his rump. Should the rider then not be thrown clear of him, he must be made of hard materials if no bones are broken, or some serious injury sustained. All this, then, enforces the advice we have already given, of avoiding strong timber with horses not perfect at leaping it, as much as may be compatible with keeping your place with hounds; and still more so with horses, how perfect soever they may be at it, that are blown, or very much distressed. It likewise induces us to point out the best and safest method of riding at this description of fence.

Never ride a horse fast at a timber fence, unless it be a low one, with something wide to be cleared on the landing side. If a man or a boy is seen exercising himself in jumping heighth, you do not see him run quickly at it, nor does he

run over any considerable space of ground before he springs. **Horseman-** On the contrary, he only takes a few steps, and those at a moderate rate. Never, then, ride your hunter fast at gates, stiles, &c. unless in the one case alluded to. Mr Thomas Assheton Smith, perhaps more celebrated for his horse-manship in the hunting field than any other person of the present age, and who was for many years at the head of the Quorndon (Leicestershire) Hunt, never rode fast at any fences, brooks excepted, and then only under circumstances which will be explained when we treat on that part of our subject. When riding at timber, however, take a firm hold of your horse's head, chiefly by the aid of the bridle, if his mouth is good enough for it; and let him understand, by assuming an air of resolution on your part, that you not only mean him to leap it, and that you will not suffer him to turn his tail to it, but that it is something at which his best energies will be required of him. But, above all things, do not interfere with his stroke or stride, unless absolutely called upon by some peculiarity of the ground, such as a grip on the headland, or a small ditch on the rising side. A horse making up his mind to leap a timber fence, will of his own accord regulate that matter, and gradually gather himself together on his haunches, previous to being required to take his spring. He will also, if you let him, often make choice of his pace at which he goes up to a gate, &c. It is true the deer can clear a greater height in its trot than in any other pace; but a horse prefers the very slow gallop, or canter, when thus called upon to exert himself; for if he do trot to any upright fence, we generally see him break into a canter in the last few yards. As the fulcrum for the spring comes from behind, the canter is the most natural pace, the haunches being at this time more under him.

The same instructions to the horseman hold good with regard to stone walls as to timber fences, at least to those met with in England, which are loose, and without ditches. But in several parts of Scotland the case is different, as the sportsman very frequently has to encounter walls with ditches on one side or the other of them. In consequence of their being placed at some distance from the wall, to prevent the water which runs down them undermining the foundation of it, there is frequently room, when the ditch is on the rising side, for a horse to leap the ditch, and take a second spring from the intermediate space, and so clear the wall. But when he has to leap the wall, with the ditch on the landing side, it becomes a very difficult fence, and must be ridden at with judgment. If the ditch be not too far from the wall, to come within the stretch of a hunter, he should be ridden quickly at it, and well roused by the rider, to make him extend himself sufficiently; but if it be too far, he should be put very slowly at the wall, so as to enable him to drop, with his hinder legs at least, on the intermediate space, and from thence spring over the ditch. This fence is very trying to horses not accustomed to it; and with those which are, one fact becomes apparent, namely, that the mere holding the reins of a bridle does not constitute what is called "a hand" on a horse. A workman with a "finger" is wanted here.

In riding at every description of timber your seat as well as your hand requires attention. You have already been told on what part of your horse you ought to sit, namely, in the middle of your saddle, which should be placed close to the shoulder bones, when your seat will be most secure, from its being just in the centre of motion when your horse springs at his fence; as, in the rising and falling of a board placed in equilibrio, the centre will be most at rest. Your true seat, indeed, will be found nearly in that part of your saddle into which your body would naturally slide if you mounted without stirrups. But other security than this is required, to insure safety over very high fences. It is not the horse's rising that tries the

Horseman-ship. rider's seat; the lash of his hinder legs is what ought to be chiefly guarded against, and is best done by the body's being greatly inclined backward. Grasp the saddle lightly with the hollow, or inner part of your thighs, but let there be no stiffness in any part, of the person at this time, particularly in the loins, which should be as pliant as those of a coachman on his box, when travelling over a rough road. A stiff seat cannot be a secure one, because it offers resistance to the violent motions of the horse, which is clearly illustrated by the cricket-player. Were he to hold his hand firm and fixed when he catches a ball struck with great force, his hand or arm would be broken by the resistance; but by yielding his hand gradually, and for a certain distance, to the motion of the ball, by a due mixture of opposition and obedience, he catches it without sustaining injury. Thus it is in the saddle. A good horseman recovers his poise, by giving some way to the motion, whereas a bad one is flung from his seat, by endeavouring to be fixed in it. In old times, when hunters were trained to leap all upright fences standing, these precautions were still more necessary, because the effect of the lash of the hinder quarters was more sudden and violent, in consequence of the horse being so close to his fence, that he rose perpendicularly at it, and not with the lengthened sweep of a flying leap.

Although Virgil, in his third Georgic, speaks of not suffering the brood mare to leap fences (*non saltu superare viam*), we find nothing on this subject in the classics, to induce us to believe that the ancients, although they hunted, were given to ride over fences. Here they sustained a loss; for we know few more delightful sensations, than that experienced in the act of riding a fine flying leaper over a high and broad fence. Nothing within the power of man approaches so nearly to the act of flying; and it is astonishing what a great space of ground has been covered at one leap by horses following hounds, or, at other times, with first-rate horsemen on their backs, who alone have the power of making them extend themselves to the utmost; and particularly when the ground, on the rising side, is sound, and somewhat in favour of the horse. In the grand Leicestershire steeple chase of 1829, a grey horse, called "The King of the Valley," the property of Mr Maxse, and ridden by the justly celebrated Mr Richard Christian of Melton Mowbray, cleared the previously-unheard-of space of eleven yards, or thirty-three feet. Yet, after all, the most extraordinary fact relating to the act of leaping in horses, is the power they have of extending themselves by a second spring, as it were, when, on being suspended in the air, they perceive something on the further side of a fence, for which they were not prepared. That they occasionally do this under good horsemen, all good horsemen of experience can vouch for; but whence the fulcrum is derived, it would be difficult to determine. All horses which have been in Leicestershire, and other countries where the fences are large and wide, become more or less accomplished in the act of throwing themselves forward, as well as springing upward, causing a very pleasant sensation in the rider, as well as an assurance that he is not likely to drop short into the ditch or brook.

We have already said, that brooks stop a field more than any other description of fence, and for the following reasons: Very few men, and still fewer horses, like jumping brooks. In the first place, as concern the rider, they are very apt to injure his horse by a strain, or a bad overreach; secondly, water is deceiving as to the extent of it; thirdly, a wide brook takes much out of a horse; and, lastly, the banks often give way, after the horse supposes he has landed himself; and although it is easy for him to get into a brook, it is often very difficult for him to get out of one. Few horses become very good water-jumpers, unless they have been hunted a good deal in

Horseman-ship. countries where brooks abound, and also have been fortunate in not getting into one of them in their noviciate. For this reason, it is a hazardous experiment to give a large price for a hunter, how high-soever may be his character, that has been only hunted in counties like Hampshire or parts of Wiltshire, where there are no brooks but such as, from the soundness of their bottoms, horses may walk through. We have already stated the most likely way to make a young horse a good brook-jumper; a very superior accomplishment in a hunter, and chiefly to be attained by his acquiring confidence.

There is one other untoward circumstance attending leaping brooks with hounds. They are, for the most part, met with in the middle of a field, and it often happens that, until the horseman arrives on the very brink of them, he cannot form a correct estimate of their nature or extent. They also vary much in both these respects, we mean in the soundness or unsoundness of their banks, and in their width, in the space of a few yards; so that it is in some measure a matter of chance whether you have to leap a wide brook or a narrow one. But then, it may be said, you can always satisfy yourself on these points. True; you may do so: but what would too often be the consequence? Why, if you shew your horse a brook before you ride him at it, it would too frequently happen that he would not have it at all; add to which, whilst you were doing this, on a good scenting day, the hounds would get a long way a-head of you. Besides, the *vis viva*, or momentum of the horse's gallop, so necessary to get him well over wide brooks with rotten banks, is wanted, but in this case would to a certain extent be lost; and if he is once pulled up, and turned around, it is not so readily acquired again, as he is always more or less alarmed, after having got a sight of what he is going to encounter. Wide brooks, then, with uncertain banks, are the only fences which should be ridden very fast at; for, exclusive of the advantage the horse gets from the impetus derived from the speed, should he fall on the other side from false ground, he will generally save himself from dropping backwards into the brook, an object of no small importance to him, as also to his rider. There are, however, exceptions to the rule of riding *fast* at brooks. When they are not wide, and the banks are sound, it takes less out of a horse to put him at a moderate rate at them. Neither should he be ridden quickly at them when they overflow their banks, as it will then require all his circumspection and care to know when, or where, to spring from, to cover them. In fact, overflowed brooks are rather formidable obstacles; but (a fine trial of hand) numerous instances do occur in the course of a season, where they are leaped when in that state by some of the field, but not by many.

Although, when the sportsman rides over a very wide brook, or any other fence which requires much ground to be covered, he has a certain hold by his bridle; yet, as may be supposed, it is very unequal to the weight of his own body, increased by the resistance of the air. How happens it, then, that his horse does not leap from under him? or, at least, how is it that, when the horse alights, the rider alights in the very same spot in the saddle on which he sat when his horse rose at it? The fact is, his body so far partakes of the speed of his horse, and increases in common with it, that, with very little assistance from his bridle-reins, he keeps himself in his proper place. If it were not so, what would become of the rider in the circus, who leaps directly upward, through a hoop perhaps, or over his whip, whilst his horse is going at considerable speed? He would, of course, alight upon the ground, perpendicularly, under the point at which he sprang from his saddle. It is evident, however, that on leaving the saddle, the body of the rider has equal velocity with that of the horse; and the spring, which he takes perpendicularly upward, in no de-

Horseman-ship.—grec diminishes this velocity; so that, while he is ascending from the saddle, he is still advancing with the same speed as his horse, and continues so advancing until his return to the saddle. In this case, the body of the rider describes the diagonal of a parallelogram; one side of which is in the direction of the horse's motion, and the other perpendicularly upward, in the direction in which he makes the leap. From these facts, these striking instances of the composition of motion, then, may the advantages of good, and the disadvantages of bad, horsemanship be appreciated; and as it appears that the motions of the rider and his horse are so intimately connected and in unison with each other (for were the circus rider to project his body forward, in his leap through the hoop, as he would do if it were on the ground, he would alight on his horse's head or neck, or perhaps before his head, for he would then advance forward more rapidly than his horse), the importance of a steady seat and a good hand is apparent, and accounts for some men crossing a country on middling horses, quicker and better than others do upon really good ones.

Having spoken of overflowed brooks, and being aware of the many fatal disasters that have occurred to sportsmen in water, and the narrow escapes of drowning from crossing flooded rivers, by others, within the last twenty years, we are surprised that the exercise of swimming horses, in the summer months, is not more generally resorted to. It was practised by the ancients; for we find Alexander swimming the Granicus with thirteen troops of horse. But the horses should be practised in swimming as well as their riders, or it would not avail the sportsman so much, as we know some horses are very much alarmed when they lose their legs in water, and often turn themselves over. That the act of swimming on horses is a most simple and safe one to those who practise it, may be proved at any of our watering places in the summer, where boys swim them out to sea, two at a time, changing their seats from one to another with the greatest ease. We observe they generally lean their body forwards, so that the water gets under it, and partly floats it, interfering as little as possible with the horse's mouth; at all events, never touching the curb rein. When the sportsman or the traveller has occasion, or is accidentally called upon, to swim his horse through deep water, and the banks will admit of it, he should enter it as gradually, as possible, as not only will his horse be less alarmed at the loss of his footing, but less liable to turn himself over in it. Thus in fording a brook too wide to leap, and with a soft bottom, a horse should be ridden *very slowly* into it, which will enable him to get his hinder legs well under his body before he makes his spring to ascend the opposite bank; which he cannot do if he enter the brook quickly.

As the young sportsman may be induced to "make his own horses," as the term is for qualifying them for the appellation of hunters, it may not be amiss to offer him a few words of advice. Be careful, the first season, how you ride them at very cramped places, especially where there is timber, for they cannot be expected to be *au fait* at such things; and many of the worst falls that some of our hard-riding sportsmen have experienced, have been from expecting young horses to do what old, or at least experienced ones, only can do. Avoid also taking the lead with hounds, especially if they run hard, with a young horse, for it may cause him to refuse a big fence which he might have followed another horse over, and thus become a refuser ever afterwards. Although horses do not understand languages, they understand the arbitrary signs of their masters or riders; and if a young hunter makes a slovenly mistake with you at a fence, he should be corrected with either spur or whip, and also *by the voice*. The merely calling out to him, or exclaiming, "For shame—what are you about, eh!" accompanied by a slight stroke of the whip,

has often a very good effect, and will be visible at the next **Horseman-ship.** fence, when he will be more careful where he puts his feet, and take a greater spring. A horse knows his errors; also, when he is corrected, and when cherished, each of which he should be subject to in their turns; but as, according to the old adage, a coward and a madman are equally unfit to be horsemen, the correction of a young hunter should not be severe. Nothing would be more likely to make him what is called a "rushing," and consequently an unsafe fencer for the rest of his life, than beating him *severely*, for any trifling faults he may commit in the field. Martingals on hunters are now generally condemned; but, in our opinion, more generally than they deserve to be, particularly during the first season of a young horse, as a long martingal serves to steady his head, if he is a little impetuous, and saves him many falls, which, putting his rider out of the question, are injurious to him, as all horses become large fencers, in a great measure, by having confidence in themselves, which falls must necessarily shake. All horses, indeed, whose necks are weak and loose, may be ridden with advantage by the aid of a martingal on the bridoon rein, *the rings coming quite up to their jaws*, when it cannot interfere with their galloping or their leaping. We remember the time, indeed, when the first sportsmen and hardest riders of the day, were never seen without a long martingal, *on horses whose heads were not quite in the right place*, and be it remembered that nineteen out of twenty race-horses are ridden in martingals. Nevertheless we would avoid the use of them when not absolutely necessary, as the more liberty a hunter has, the more likely he is to recover himself when in difficulty.

The perfect command of a horse in the hunting field is in nothing more essential than in passing through half-opened gates, and many have been the bad accidents that have arisen from the want of it, horses being often stuck fast between the gate and the post, to the no small injury to their rider's legs or knees. Indeed the being handy in opening a gate, is no trifling accomplishment in a hunter; and here a few lessons in the school may be of advantage to him. He would there be taught to obey the leg as well as the hand; and, by a slight touch of the spur, would throw his haunches round to the left, on his rider unfastening the latch with his right hand, and thus enable him to throw the gate behind him, and pass through it. This has reference to gates that open *towards* the horseman; such as open *from* him, require not the horse's aid. But it often happens when a horse is blown, or beat, that unless he have a very good mouth, he will hang upon a gate, and nearly prevent his rider from opening it at all. One precaution, however, should always be taken with gates: the rider should never trust to catching the topmost bar, or what is called the head of the gate, but should pass his hand inside of it, when he will be certain to come in contact with some part of it.

Falls.—There is a proverb, and a true one, which says, "He that will venture nothing, must not get on horse-back." All men, however, who ride a-hunting are subject to falls, but those who ride near to hounds, or "hard," as the term is, seldom escape without having several in the course of a season. It is well, then, that the young sportsman should know, that there is an art in falling, as well as in preventing falls. This consists in getting clear of the horse as soon as possible, which a man in the habit of falling has a better chance to do than one who runs less risk of it, having greater self-possession at the moment. Next to a horse coming neck and croup over a high timber fence, a fall in galloping at full speed is most dangerous, and apt to dislocate the neck, by the head coming first to the ground; and from the velocity of the fall, the rider has no time for precautions. However, even in this case he should endeavour to put out one hand, if not both, to break the

Horseman-ship—force of the fall, as well as to act in resistance to his head coming first to the ground, and receiving the whole force of the concussion. By so doing, it is true, the collar-bone stands a great chance of being fractured; but that is an accident merely of temporary inconvenience, and unattended with danger, whereas a dislocated neck is very rarely reduced. But it is a curious fact, that there are fewer instances of broken necks in the field in the present age, than there were nearly a century ago, notwithstanding that for one man who rode a-hunting then, there are fifty now; and the pace of hounds, as well as style of riding, much altered as to speed. This has been accounted for in two ways: first, the modern sportsman sits, for the most part, down on his saddle, whereas the sportsman of olden times stood up in his stirrups, and, when his horse fell with him in his gallop, was nearly certain to fall on his head. Secondly, he did not ride the well-bred, superiorly-actioned horse that the modern sportsman rides, which would account for his falling oftener in his gallop, and particularly as the surface of the country, in his day, was very uneven and uncultivated compared to what it now is. Neither was the hunting cap of much service to him in accidents of this description. On the contrary, from its being so low in the crown, as it was then made, coming in immediate contact with the top of the head, the concussion was greater if he were thrown upon his head, than if it had been cased in a hat which, from the depth of it, would break the fall.

In all falls, the horseman should roll away from his horse as soon as he possibly can, lest in his struggle to rise again he strike him with his legs or head. It frequently happens that the horse himself rolls after he falls, and, if in the direction in which his rider lies, is apt to crush and injure him. Indeed, there is scarcely any hard rider who has not been thus served; but here again self-possession often stands his friend. When he sees the body of his horse approaching him, he frequently saves himself by meeting it with one of his feet, and, by obtaining a fulcrum, shoves his own body along the ground out of his reach. Coolness in this hour of peril, likewise serves the sportsman in another way. Instead of losing hold of his reins, and abandoning his horse to his own will, as the man who is flurried at this time invariably does, he keeps them in his hand, if not always, perhaps in nine falls out of ten, and thus secures his horse. It was the remark of a gentleman to whom we have before alluded, and who (*singulus in arte*) was, from his desperate system of riding, and despite of his fine horsemanship, known to have more falls than any other man during the time he hunted Leicestershire, that nothing had so low an appearance as that of a man running on foot over a field, calling out, "Stop my horse."

Before quitting this part of our subject, it may be well to observe, that in cases of bad falls, particularly those affecting the head, where the lancet cannot be immediately had recourse to, a large wine glassful of equal parts of strong vinegar and water, drunk by the sufferer, is found to be very efficacious, from the revulsive powers of the vinegar acting on the general circulation of the system. In countries where there is much timber to be leaped, stiles particularly, calkins to the shoes of the hinder feet of a hunter should never be omitted, as should those feet slip under his body, the fulcrum, to spring from, is lost, and a fall nearly certain.

We have only a few words more to offer to the young sportsman. Nature is invariably the standard of excellence, and unless she have endowed you with a cool head, a vigorous body, and a stout heart, you will not long distinguish yourself in the hunting field, as what is now termed "a first-flight horseman." You may sing with Hector,

"——— The foremost place I claim,
The first in danger, as the first in fame;"

but you will not obtain it unless you possess the above **Horseman-ship** requisites. But having them, do not consider the following admonitions unworthy of your notice: Never ride at impenetrable, or impracticable places; you may get over or through them with a fall, but your horse will surely be the worse for the attempt, and will the sooner sink under you in a good run. Never abandon your horse to himself over any ground, but be sure to hold him fast by his head, either up or down hill, and in soft ground. If you doubt the effect of a tight hand at these times, ask the first Newmarket jockey you meet, and he will fully satisfy your doubts. In the daring movements of that "*lawless moment*," which the first start after hounds, in some countries, may now be termed, from the desperate attempts hard-riding men make to get the lead, do not fail to have your eyes about you, and also keep a good command over your horse. In plain English, *do not ride over any man*. Some of the worst accidents to sportsmen have arisen from this cause. In the first place, one man will often ride so close to another who is going to leap a fence, that if the first horse falls, the second is almost certain to leap either on or over him and his rider, as he can rarely be pulled up, or even turned, in so short a space. But even should the second man see the first man's horse in the act of leaping the fence, he should allow him some time to get away from it, for in the event of his clearing it, it is still possible he may fall, by stumbling over something after landing; stepping into a grip or rut, or into false ground, all of which he is subject to, but more especially towards the end of a chase, when, of course, his strength and action are reduced. It is better, if you can, to take a line of your own than to follow any one at this time, as your horse is now fresh; and, by not having cause to pull him up to let others go before you, you have a better chance to get a good start, which gives you a great advantage. When once along side the pack, quit them not until they have finished their work, or at least as long as your horse can go without trespassing too hard on his powers. If, however, you get the lead and can keep it for forty minutes, *best pace over the grass*, with rasping fences and two wide brooks in your way, the laurels Cæsar won would be weeds, and withered ones too, compared with those which would, for that one day, be yours.

There have been, and are now, some splendid specimens of horsemanship, and the management of horses in other ways, amongst servants, and it appears there always were such. Amongst the celebrated ones of antiquity we find the following, moving in this humble sphere: Automedon, servant to Achilles; Idæus to Priam; Metiocus to Turnus, king of Rutuli; Myrtilus to Cénomous, a son of Mars; Ceberes to Darius; and Anniceris, servant to Cyranæus. And why should not the servant, by practice, become as fine a horseman as his master? The question appears to be easily answered, namely, that the chances are equal, with equal instruction and experience. But such has not been found to be the case; and although amongst the various huntsmen, whippers-in, and what are known by the appellation of second-horse-men, namely, those grooms who ride horses with hounds, to supply the place of those their masters ride, when they become fatigued, a most humane, as well as economical plan with all who have a stud of hunters, some super-excellent horsemen may be found, the generality of servants are deficient in that first essential to good horsemanship, a fine or sensitive hand. Nor is this a matter of surprise. The nervous influence, proceeding from the organs of touch, may be said chiefly to constitute what is termed the "hand" of the horseman; and that influence may easily be supposed to be greater in a person whose situation in life has not subjected him to rough and laborious employments which must necessarily tend to deaden it. Until of late years the seat of servants was unfavourable to a good hand on

Horseman-their horse, as they, with very few exceptions, rode with **ship-**too short stirrups, and, consequently, by being not well placed in their seats, were perpetually interfering with their horses' mouths, from their unsteadiness. So fully aware of these objections was the late Mr Childe of Kinlett Hall, Shropshire, that, during the period of his keeping fox-hounds, he had only one servant in his large establishment that he ever suffered to mount the horses he himself rode, and that was William Barrow, afterwards more than twenty years huntsman to the late Mr Corbet in Warwickshire; and who was remarkable for his fine bridle-hand. Notwithstanding this, it may fairly be maintained, that, from the fact of the comparatively small number of good horsemen who have obtained instruction from the schools, there is more of nature than of art in the acquisition of skill and talent on the saddle.

Saddles and bridles form no unimportant feature in the equestrian art, as well as in the establishment of a sportsman. Nothing sets off the appearance of a horse and his rider more than a good saddle and bridle, nor does any thing contribute more to the comfort and safety of the latter than a well-made, roomy saddle, with spring bars for the stirrup-leathers; stirrups rather heavy than otherwise, and sufficiently large for the feet. Some persons, not contented with the spring bars, require spring stirrups as well; but in our opinion, no man can hang in a common stirrup, provided he do not wear thick boots nor use small stirrup-irons. Of the various sorts of bridles, the snaffle is most in use on the turf, and the curb for military horses, hunters, roadsters, and coach-horses. Not one hunter in twenty has a mouth good enough for a snaffle only; although there are a few horses in every hunt that will not face the curb. Some, however, go very well on the snaffle up to a certain period of a run, when all at once they require the assistance of the curb. Such horses should be ridden with a double bridle, so that the rider may have recourse to the curb-bit, when wanting.

There is often great nicety required in fitting a horse with a bridle, if irritable in his temper, or a very hard puller. If the former, he must have a bit of just sufficient severity to control him, and not any thing more. The one called the "Pelham," is well adapted to horses of this description, as it partakes of the double properties of snaffle and curb. With very hard pulling horses, the curb to a severe bit must be used; but the evil of this is, that, after a certain time, the mouth, thus acted upon, becomes "dead," as the term is, and the horse is unpleasant to ride and difficult to turn. To remedy this, three players should be attached to the port of the bit, which, by hanging loosely over the tongue, keep the mouth alive. A bridle of this description, very long in the cheek, is known in the hunting world, as the "Clipper bit," being the one in which that celebrated horseman Mr Lindow rode a horse, called the Clipper, several years over Leicestershire, in which far-famed county he was supposed to be the best hunter going. If a horse rushes at his fences, a moderately tight nose-band is useful, as also to prevent his opening his mouth, and snatching at his rider's hand. The less a horse opens his mouth in his work the better, as it tends to make it dry; whereas, it cannot be too moist for his own good. Bits very high in the port are of course the most severe, owing to the increased purchase; but with every description of bits, care should be taken that they are sufficiently wide

for the mouth, so as not to press against the horse's cheeks, **Horseman-**and that the headstall is sufficiently long to let the bit drop **ship-**well into the mouth.

As we read in the 22d chapter of Genesis, 3d verse, that "Abraham rose up early in the morning, and saddled his ass," saddles of some sort must have been used in very early days; but few things appear more extraordinary to those persons who look into ancient history, than the fact of saddles *with stirrups* being a comparatively modern invention. Although a French translator¹ of Xenophon, by an oversight, makes a governor of Armenia hold the stirrup of the Persian king when he mounted his horse—"Il lui tenoit l'étrier lorsqu'il montoit à cheval,"—it is well known that the ancients had no stirrups, but that men of rank among them were accompanied by a person whose office it was to lift them into the saddle, whom the Greeks called *ἀναβάτης*, and the Romans *strator*. There is no mention of stirrups in any Greek or Latin authors, no figure to be seen in any statue or monument, nor any word expressive of them to be met with in classical antiquity. In the celebrated equestrian statues of Trajan and Antoninus, the legs of the rider hang down without any support; whereas, had stirrups been used at that time, the artist would not have omitted them. Neither are they spoken of by Xenophon in his two books upon horsemanship, in which he gives directions for mounting; nor by Julius Pollux in his *Lexicon*, where all the other articles belonging to horse-furniture are spoken of. The Roman youth, indeed, were taught to vault into their saddles, (*Æneid* xii. 287.)

—"Corpora saltu
Subjiciunt in equos;"

and in their public ways, stones were erected, as in Greece also, for such as were incapable of doing so. As another substitute for stirrups, horses in some countries were taught to bend the knee, after the manner of beasts of burthen of the East;² and in others, portable stools were used to assist persons in mounting. This gave birth to the barbarous practice of making captured princes and generals stoop down, that the conqueror might mount his horse from their backs; and in this ignominious manner was the Roman Emperor Valerian treated by the Persian King Sapor, who outraged humanity by his cruelty. The earliest indisputable mention of stirrups is by Eustathius (the commentator of Homer), about six hundred years back, who uses the word *stabia*.

Although the history of the saddle has not exercised the learned world so much as the antiquity of the stirrup, a good deal has been written and said about it. Like all other inventions, it appears to have been suggested by the necessity of making the rider sit easily upon his horse, and some kind of covering, consisting of cloth or leather (skins or hides, perhaps), was placed on the animal's back. These coverings, however, became afterwards extremely costly;³ they were made to hang down on each side of the horse, and were distinguished among the Greeks and Romans by various names. After they became common, however, it was esteemed more manly to ride without them; and thus we find Varro boasting of having ridden bare-backed when young. Xenophon also reproaches the Persians with having placed as much clothes under their seats, on their horses' backs, as they had on their beds. It is certain that no coverings to the horses' backs were for a long time used

¹ D'Ablancourt.

² See Silicis Ital., lib. 10. 465,—

"Inde inclinatus collum, submissus et armos
De more, inflexis præbebat scandere terga
Cruribus."

³ See Virgil, *Æneid* vii. 276, viii. 552; Ovid, *Metam.* lib. viii. 33; also Idry, lib. xxxi. cap. 7, who speaks of a man who dressed his horse more elegantly than his wife.

Horseman-ship in war; and, according to Cæsar, the old German soldiers despised the cavalry of his country for having recourse to such luxuries. In the time of Alexander Severus, the Roman soldiers rode upon very costly coverings, excepting at reviews, when they were dispensed with, to shew the condition of their horses. But we should imagine we must look to later times for the costly trappings of the horse. In his description of the city of Constantinople, the author of the *Letters of the Turkish Spy* says, "The next thing worthy of observation is the Serayan, or house of equipages, where are all sorts of trappings for horses, especially saddles of immense cost and admirable workmanship. There cannot be a more agreeable sight, to such as take pleasure in horses and riding, than to see four thousand men here daily at work in their shops, each striving to excel the rest in the curiosity of his artifice. You shall see one busy in spangling a saddle with great Oriental pearls and unions intermixed, for some Arabian horse, belonging, perhaps, to the Vizier Azem; another fitting a curb or bit of the purest gold to a bridle of the most precious Russian leather. Some adorn their trappings with choice Phrygian work; others with diamonds, rubies, and the most costly jewels of the east."

But to return to the history of the saddle, its invention, and general use, the latter a point very difficult to be ascertained. The word *ephippium*, by which the ancient Romans expressed it, being merely derived from the Greek words *ἐπὶ*, upon, and *ἵππος*, a horse, leads us to conclude that, by degrees, the covering spoken of was converted into a saddle. The Greek word *ἵμα*, used by ancient authors, is believed to have been to express a saddle, and is more than once used by Xenophon, in his *De Re Equestri*; and Vegetius, who wrote on the veterinary art nearly 400 years B. C., speaks of the saddle-tree. Perhaps the clearest proof of the use of any thing approaching to the form of the modern saddle, is the order of Theodosius (see his Code), in the year 385, by which such persons as rode post-horses in their journeys were forbidden to use those which weighed more than sixty pounds; if heavier, they were ordered to be cut to pieces. What would the people of those times have thought if they could have seen one of our Newmarket racing saddles, weighing under four pounds, but giving the rider a very comfortable seat. The order here alluded to, doubtless applied to something resembling a saddle, although of rude workmanship, as its weight bespeaks. Every traveller, we may conclude, was provided with his own saddle; and about this time the Latin word *sella* more frequently occurs. In the fifth century, again, we find articles bearing something of this stamp, and made so extravagantly magnificent as to call forth a prohibition by the Emperor Leo I. against any one ornamenting them with pearls or precious stones. The saddle-tree is also mentioned by Sidonius Apollinaris, a Christian writer, who was born A. D. 430; and in the sixth century, the saddles of the cavalry, according to Mauritius, who wrote on the military art, had large coverings of fur; and about this period, the Greek word *σέλα* (*sella*) is used. It is considered probable, however, that the merit of the invention of saddles may be due to Persia, not merely from the circumstance of Xenophon's mentioning the people of that country as being the first to render the seat on the horse more convenient and easy, by placing more covering on their backs than was common in other parts, but also because the horses of Persia were made choice of for saddle-horses in preference to any others. That the word saddle is derived from the Latin word *sedeo*, to sit, may fairly be presumed. That the proper saddle itself, however, was unknown in England until the reign of Henry VII., we have good reason to believe; and in Ireland, from the absence of any representation of it on their coins, it may be conjectured, not till many years subsequent to that period. The

woman's saddle, called by us the side-saddle, first appeared in Richard the Second's time, when his queen rode upon one; but from the pictures of men and women's saddles used in England's early days, we find they were miserable apologies for our modern saddles. Indeed, at the present time, Great Britain is the only country in which proper saddles are made. Hunting saddles should have their pannels well beaten and brushed to prevent sore backs; and no sportsman, even if light, should use a short saddle, under sixteen inches from pommel to cantle.

The antiquity of the spur does not appear to have much excited curiosity; but the use of this instrument was known in the very earliest age of which we have any satisfactory history. At least we may presume that it was so, from the Hebrew word signifying horseman (*Pavash*), appearing to be derived from a Hebrew root signifying to prick or spur. So at least says Buxtorff; and he adds, that the horseman, or spurrier, was so called on this account: *Equus quod equum calcaribus pungat*; and he quotes Eben Ezra in confirmation of his opinion: *A calcaribus quæ sunt in pedibus ejus*. Spurs occur but seldom on seals, or other antiques, in the eleventh century, but in the thirteenth they are more frequent. As it is necessary that a horse should obey the leg as well as the hand, all military and parade horses are ridden in spurs; and, as we have already said, they are very useful to the sportsman in riding across a country, particularly in the act of opening gates; also all race horses that will bear them are ridden with them, because, should punishment be wanting in a race, it is more easily inflicted by the heel than by the hand; add to which, these horses not only require the jockey's two hands at the same time, but are apt to swerve, or shut up, if struck severely by the whip.

Race-Riding, or Jockeyship.—Race-riding and riding over a country cannot be called sister arts. Indeed the former bears little relation to any other system of horsemanship, because, from the rapidity with which the race-horse gets over the ground, there is neither time nor necessity for a display of the various aids which it is in the horseman's power to afford to his horse in most other cases. Nevertheless, the very refinement of the art, the nice and delicate hand, together with a firm and strong seat, is absolutely essential to a good jockey. Neither is this all. He must possess a stout heart and a clear head.

Something like jockeyship was practised in very early times, the Greeks having introduced it at their celebrated games. In the 33d Olympiad they had their race of full-aged horses. In the 71st Olympiad they instituted that for mares called the Calpe, bearing a resemblance to our Oaks Stakes at Epsom; and an interesting anecdote is handed down to us, relating to this race. A mare, called Aura, the property of one Phidolas, a Corinthian, threw her jockey, but continued her course as if he had kept his seat, increasing her pace at the sound of the trumpet, and, finally, as the story goes, presenting herself before the judges, as if conscious of having won. The Eleans, however, declared her to be the winner, and allowed Phidolas to dedicate a statue to her. In the 131st Olympiad, the race of the *πύλας* *νέων*, or under-aged horses, was established; but with respect to all these races, we are left in obscurity as to the weight the horses carried, as also the distance they ran; and whether or not such matters were regulated by their age, and not at all by their size. It is the general opinion that they were left to the discretion of the judges (the Hellenodics, as they were called), who regulated all matters at Olympia, as the members of our Jockey Club do at Newmarket; but, as may be expected from the character of the times, exercising a power over their brother sportsmen, which would not be relished at the present day, although, in some respects, well worthy of imitation. For example, they not only excluded from the games and imposed fines upon

Horseman-ship. such as were convicted of fraudulent or corrupt practices, but inflicted bodily correction upon them besides. But some very interesting facts are the result of the rigid scrutiny of this Elean Jockey Club. Alexander the Great was ambitious of obtaining the Olympic crown, but was objected to as being a Macedonian, the prize he wished to contend for being confined to Grecians. Alexander cleared himself by shewing, that although he was a prince of Macedon, he was descended from a family that came originally from Argos; and the Hellanodics allowed him to start, but he did not win. Themistocles objected to Hiero, King of Syracuse, as a tyrant, and proposed that the magnificent pavilion which contained his race-horses should be pulled down. The objection, however, was overruled, and he became a winner; but we do not wonder, that, in a Grecian assembly, the name of tyrant should have been abhorred.

The seat of the jockey is one of peculiar elegance, heightened by the almost universal symmetry of his form, or figure, for very few ill proportioned men are seen in the racing saddle. The good appearance of the jockey is also increased by the neat fit of his clothes; his appropriate costume to his calling; the extreme cleanliness of his person, produced by his necessary attention to it during his preparatory course of exercise; and, though last, not least, his almost affinity with the noble animal we see him mounted upon. But for this he is indebted to Nature—to the relation that the bodies of animals hold to natures altogether external to their own; and it is most happily exemplified in that of a man to his horse, which appear to have been especially formed for each other. But, as a celebrated moral philosopher has observed, "There is throughout the universe a wonderful *proportioning* of one thing to another. The size of animals, of the human animal especially, when considered with respect to other animals, or to the plants which grow around him, is such, as a regard to his convenience would have pointed out. A giant or a pigmy could not have milked goats, reaped corn, or mowed grass; *could not have rode a horse*, trained a vine, or shorn a sheep, with the same bodily ease as we do, if at all."

Previously to describing the proper seat of the jockey, we will now endeavour to exhibit him in the most likely form to acquire that seat. In height he should be about five feet five or six inches. We are aware there are several excellent jockeys under this standard; but they do not look so well on their horses, neither can they be so firm in their seat from want of a better clip, which the firm grasp of a longer thigh gives them. He should be rather long in the fork for his height, with low shoulders, rather long arms, moderate length of neck, small head, and a very quick eye. He should be of a naturally spare habit, to save the expense to his constitution by wasting; but he should have as much muscle in his arms and thighs, as his diminutive form will admit of; in short, to ride some horses at such very light weights, he should be a little Hercules. But there must be nothing like rigidity in his frame. On the contrary, there should be a great degree of pliability about his arms, shoulders, and back-bone, to enable him to be in perfect unison with his horse. He should have very free use of his hands, so as to change his reins from one to the other in a race, and to whip with the left, as well as with the right, when occasion requires it; he should possess much command of temper; and, lastly, he should have the abstinence of a Brahmin.

The seat of the jockey may be described in a few words. He should sit well down in his saddle when he walks his horse to the post, with his stirrups of moderate length, so as to enable him to clear his pommel, and have a good resisting power over his horse. No man can make the most of a race-horse with long stirrup leathers, because, when he is going at the top of his speed, he sinks down in his fore-quarters, in his stride, to the extent of several inches.

It was calculated that Eclipse, naturally a low fore-quartered horse, sank nearly eight inches. The circumstance, then, of the use of the stirrup, in ancient racing, being unknown, fully accounts for racing on horseback as we now race, being, comparatively with chariot-racing, but little resorted to; and the excellency of a jockey in the Olympic Hippodrome, consisting more in a sort of harlequin feat of jumping from one horse, and vaulting upon another, in a race, than riding and finishing it, as it is now finished, in a severe trial of speed, bottom, and jockeyship. Indeed, some racers go with their heads so low as to bear up their rider from the saddle whether he will or not, and they would pull him over their heads, if he had not the power of resistance from his stirrups. Much nonsense was written by the late Samuel Chiffney, in a pamphlet called *Genius Genuine*, on riding the race-horse *with a slack rein*, which system, although we by no means approve of a hard, dead hand upon any horse, we are convinced can never be put into practice with advantage to either the horse or his rider. Exclusive of the necessity of restraining a free horse, who would run himself to a stand-still if suffered to do so, or, in making what is called a waiting race, all race-horses feel themselves relieved by a strong pull at their heads, and many will nearly stop, or, at all events, very much slacken their pace, on finding their heads loose. In our opinion, the hand of a jockey on his horse should always be firm, though at times delicate to an extreme; and he should never surprise or disturb the mouth of his horse, in his race, by any sudden transition from a slack to a tight, or from a tight to a slack rein. In fact, every thing in horsemanship is best done by degrees, but at the same time with a firmness and resolution which a horse well understands; and the hand which, by giving and taking, as the term is, gains its point with the least force, is the best and most serviceable, as well as most agreeable to a horse.

Considering the variety of horses of all forms, shapes, and tempers, that a jockey in much repute rides in the course of a year, the necessity for a good bridle-hand is obvious. Some thorough-bred ones have their necks set so low on their shoulders, that they bend first down, then upwards, like a stag's; and were it not for the power of their rider, such horses would absolutely look him in the face. Others have the upper line of their necks, from the ears to the withers, too short. A head attached to such a neck as this is very difficult to bring into a good place, because the inflexibility of it will not admit of its forming an arch; for in long and short-necked horses the number of the vertebræ, or neck-bones, are the same. On the other hand, some horses' necks are as loose as if they had joints in them, and consequently have the power of tossing up their nose almost in defiance of their rider's hand. Others get their heads down in their gallop, in the act of reaching to get more liberty of rein, snatching at their rider's hand with great force. Some pull very hard, and others will not pull enough. Were it not, then, for the tackle in which these low-necked, short-necked, stiff-necked, loose-necked, snatching, pulling horses are ridden in, even the fine hand and firm seat of a first-rate jockey would not be a match for them; and, as it is, it is as much as he can do to manage them; but they would be nearly their own masters with a man on their back who had neither one nor the other. This tackle consists, in addition to the bridle, of the common martingal, with a spare martingal rein, independent of that to the snaffle-bit; a gag-bit and rein, and the martingal running rein. The first, the common martingal-rein, is merely to prevent a loose-necked horse throwing his head up. The jockey uses it altogether, or lets it lie on his horse's neck till he wants it. The gag-rein, from its severity, is generally knotted, and remains untouched till wanted. Its use is to prevent a horse getting his head

Horseman-ship. down, when he goes too much on his shoulders, or bores, and is consequently very difficult to ride, and be made the most of in a race. By *gradually* giving and taking with this and the snaffle-rein, the jockey gets his horse's head into a proper place, and rides comparatively at his ease. We say "*gradually*," because if done with violence it may cause him to alter his stride. The running martingal-rein (the most common now in use, particularly with young things), is merely to steady a horse's head, and to give his jockey more power over him to prevent his breaking away with him in a race, and to enable him to pull him up at the end of it. No hard puller, or very free-going racer, is ridden without this running martingal-rein. The jockey uses it much in the same way as he uses the snaffle-rein, giving and taking with it in his pulls, so as to keep his horse's mouth alive, and thereby bring his head into a proper place. The necessity for this perfect command of the race-horse, by some one of these means, is obvious, when we see how often they are huddled together in a race, and knowing that, if a foot of either of them should strike or get locked in that of another, a fall is the inevitable consequence. Besides, no horse can exert his utmost speed for any length of time, unless he will allow himself to be handled by his rider, and pulled well together, to prevent his over-striding as well as over-pacing himself. These check-reins can all be used with the double curb-bridle, if necessary, though they seldom are, with the exception of the first, the common martingal-rein. It is pleasant to see a race-horse go with his head in a good place in a simple snaffle-bridle, without any additional reins; and no doubt it must be as agreeable to the horse, but it is rather a rare sight, and particularly with young things. That the snaffle-bit is the best in which the race-horse can be ridden, there cannot be a doubt, not merely on account of his being able to support himself to a certain degree in his gallop, by leaning upon it to the extent his rider permits him, but because his jockey can pull his head any way he likes, to the right or to the left; as in a turn, for instance, or to avoid treading on another horse's heels, which is before him; whereas the curb-bit only acts in a straight line. It is better, however, to have recourse to the curb, than to let a hard-pulling race-horse get the better of his jockey, and overpace himself at any period of his race.

We will now bring our jockey to the starting post, where the first thing he does is to strip. Having inspected the saddling of his horse, and found every thing about him secure, he cocks up his left-leg, and is chucked into his saddle by the trainer, who generally wishes him "*luck*" as he performs this office for him. After he has seated himself firmly down in it, and tried the length of his stirrup-leathers, he takes his "*up gallop*," as he calls it, of perhaps half-a-mile, his trainer generally leading the way on his hack; and then walks his horse quietly to the starting post. But his method of starting his horse depends entirely on circumstances. If, for a half-mile race, in which a good start is a great advantage, he catches fast hold of his horse's head, and, if he will not start quickly without, sticks both spurs into his sides as soon as the word "*go*" is given, taking his chance of getting his head down into its place when and how he can. If, for a two-mile race, or over that distance, he need not be in such a hurry at starting, provided he do not lose too much ground; but all this must in great measure be regulated by his orders, whether to make running or to lie by, and wait. We will, however, put him in all these different situations.

The Half-mile Race. generally straight. Orders, "*To make running*." Having turned his horse round *beyond*, or we should rather say *behind*, the post, he brings him as quietly as he can back to it, with his near-side bridle-rein passing outside of, and over the lower part of, the palm of the left hand, and then pressed firmly by the

thumb, and with the off-side rein between the middle and third fingers of the right hand, in which he also has his whip; but, at starting, and throughout a race, unless obliged to strike his horse, a jockey always holds his horse's head with both hands. If a double rein to a curb-bit is used, the near-side rein passes between middle and third fingers of the left hand, and the off-side one between the middle and third fingers of the right hand. On the word being given, as we have already said, he sticks the spurs into his horse's sides, or, by any other means in his power, gets him on his legs, that is, on his speed, as soon as he possibly can, dropping his hand to him to enable him to feel his mouth. He lets him go perhaps half the distance he has to run with only his head hard held, before he gives him his *first* pull; but this event (the half-mile race) being soon over, there is no time for much speculation, and the pull must be but a short one. He then runs up to his horses again; lives with them to the end and wins, if he can, without a second pull; but if he finds other horses too near to be pleasant, or, in other words, appearing to be as good as his own, he takes a second pull within the last one or two hundred yards, when he again lets loose and wins. The same directions hold good in a mile race, with the exception that the jockey need not be quite so much on the *qui vive* at starting, and his pulls may be longer, and the last further from home.

The Half-mile Race. Orders, "*To wait*." In this case the jockey gets well away with his horses, but never more than a length or two behind any of them, as more than that distance is difficult to make up in so short a race. Within a hundred and fifty, or, perhaps, two hundred yards of home, he gets "*head and girth*," as the term is, with the leading horse, and then lets loose and wins.

The Mile Race. Orders, "*To wait*." The jockey may start last of all if he like, but he must not lose much ground. However good judge a jockey may be of *pace*, it is a fault to lie far out of his ground. Let him then also lie well with his horses all the way, creeping up to them by degrees, and not quit them to win till he feels certain he has the race in his hand; that is, till he sees that the other horses have overmarked themselves by the pace. His orders to wait have been given him from the supposition or knowledge that speed, not stoutness, was the best of his horse, and, consequently, that if he had made the running or "*play*," he would not have run home.

The Two-mile Race. Orders, "*To make running*." Nothing, next to the struggle of the few last yards between two horses very nearly equal, called on the Turf "*the set-to*," is so difficult in racing horsemanship, as making running or "*play*" by a jockey, solely for the benefit of the horse he himself is riding. In other words, it is a great accomplishment in a jockey to be a superior judge of *pace*, that is, of not merely the pace he himself is going, but how that pace affects the other horses in the race. And this task is more difficult with some horses than with others, and especially with idle or lurching horses, which, when leading, require urging by the hand or leg every yard they go. In this case, the jockey works hard to keep his horse going. He has to use his hands, arms, legs, and feet, and occasionally to turn his head round, with all his limbs in action at one and the same moment, and yet not disturb his horse's action; and this, in addition to great anxiety of mind, lest he should upset his horse, and so lose the race. The upshot is, if his horse answers the opinion entertained of him, by cutting up his competitors by severe "*play*," he wins his race, and has the character of being a stout, honest horse.

The Two-mile Race. Orders, "*To wait*." In this case the jockey goes off at a steady pace, with a good hold of his horse's head, as near to the other horses as he likes, but not attempting to go in front. Thus he continues in his

Horseman-
ship.

place to within a certain distance from home, probably specified in his orders, when he brings out his horse, as the phrase is, challenges all the others at once, and wins, if his horse be good enough. This is one of the easiest tasks a jockey has to perform, and if he is pleasantly mounted, he gets an agreeable ride. We shall say little of races more than two miles, for two reasons: First, because the same observations apply to them as do to those of two miles, with proper allowance for the extra distance; and, secondly, because four mile races are now very nearly abolished. In the latter, the chief qualification for a jockey is strength of constitution and a firm seat, added to a very correct idea of pace, for a four-mile race seldom comes to a very nice point at the finish.

The duty of a jockey is to win his race if he can, and not to do more than win it. A neck is sufficient if he have the race-hand; but he should win by a clear length whenever he is in doubt as to the state of the horses he is running against. This is a nice point for a jockey to decide upon, and one which is highly esteemed by his employers, who are always anxious that the powers of their horses should not be unnecessarily exposed. Perhaps one of the finest specimens of science in this peculiar department of the art of horsemanship, was displayed by those celebrated Newmarket jockeys, Robinson and Chiffney, in a struggle for the St Leger stakes at Doncaster in 1827.

All good jockeys avoid the use of the whip as much as possible. When a race-horse is in the fullest exercise of his powers and doing his best, it is unnecessary, for it cannot make him do more; but the blow of a whip often does harm, particularly if it fall under the flank. Instead of its having the effect of making the horse extend himself over a larger surface of ground, it may have quite a contrary effect, from his shutting himself up, as it were, or shrinking, to avoid the blows. The spur, properly used, is a much better instrument for increasing the speed of a horse, although there are times when the application of the whip, or the mere act of flourishing it in the hand, is eminently serviceable to the jockey. We mean when his horse hangs to one side of the course or the other, or towards other horses in the race, or exhibits symptoms of running out of the course, or bolting. A jockey ought to be able to use his whip with vigour when necessary, and (though this do not often happen) with his left hand, as well as with his right, in case of his losing what is called the whip-hand, when he cannot use his right.

The nature and form of race-courses are points very much to be considered in jockeyship. Such as are quite flat and straight are, of course, the least difficult to ride over; but a little variety of ground is favourable to the horse, and not unpleasant to the jockey. Those which are hilly require much judgment to know where to make the best play; or, in other words, what part of the ground is best suited to the action and nature of the horse. All horses, however, require holding hard by the head both up and down hills, or they will soon run themselves to a standstill. A small ascent is desirable to finish a race upon, as it is safer for the riders, who occasionally lose their horses' heads in the last few strides; and also in pulling them up, when they are often in an exhausted state, and, consequently, liable to fall or slip, on uneven ground, especially if it be in a slippery state from drought or wet. Most country courses have turns in them, which must be provided against in two ways. First, the jockey, at starting, should endeavour to get the whip-hand of his competitors; that is, he should try to be on the right side of the other horses, if the posts are on his right hand, and on the left side of them, if they are on the left. He will, of course, in this case have to describe a smaller circle of ground in his race than the other horses will have, and also, if the turns be on his right, the use of his right or whip-hand, at any period

of the race; which he would not have, if he were on the outside of one or more horses in the race. But he must be wide awake over a course with turns in it, as some of them are very difficult to make, especially if all the horses are in strong running at the time, and the one he is riding should not be what is called kind at his turns, or an easy horse to ride. He must not omit the precaution of lying a little out of his ground before he comes to a turn, so as to make it pretty close to the post, when he will be less likely to disturb the action of his horse, than if he made it at a more acute angle, which he would necessarily do, if he did not take this sweep. Another precaution is also necessary; as, when a horse is galloping in a circle, the first leg towards the centre takes the lead, the jockey should endeavour to make his horse lead with the leg next the turn, which will prevent his changing his leading leg in the turn, which he will be obliged to do, unless a very easy one indeed. This is best effected by keeping his head a little to the opposite side of his body; that is, a little to the left hand, if the posts are to the right, as they generally are, and *vice versa*. When a race-horse is extended at the very top of his speed, his head should, of course, be kept straight; but as he is never going his best pace in his turns, the keeping of his head away from them, for the purpose we have noticed, cannot be at all injurious to him. In quite straight running, it is, we believe, of very little consequence with which leg the race-horse leads.

Our remarks on the art of race-riding may be concluded by stating the manner in which horses of various tempers, dispositions, and capabilities, are to be ridden, with the best chance of being made the most of. Nine racers in ten are free-going ones, if not hard pullers. On one of this description, the great art of the jockey is to economize his powers according to the length he has to go, as also the weight he is carrying, so as not to let him over-mark himself, and have little or nothing left in him at the finish. If other horses make running, this can only be done by his sitting perfectly still in his seat, dropping his hands, and having fast hold of his horse's head. The less he interferes with his mouth the better; and if he likes to be well up with the other horses, he is better there, supposing him not to be a regular jade, than pulled at, to be kept back. Temper is a great thing in this case, we mean in the jockey; for a hasty horse and a hasty rider are sure to disgrace themselves. Every unnecessary movement in the one is instantly responded to by the other, who becomes flurried, and pulls more determinedly than he did before.

The lazy, sluggish, or "craving" horse, as trainers call him, requires riding from end to end of his race. By this we mean, that although the body of his jockey should not move, he is often obliged to raise his hands off his horse's withers, to shake him now and then; as well as to use his feet to urge him to a better pace, or even to keep him at the one he is going. Indeed, he will sometimes require a blow with the whip, or at least to be very much roused, to make him extend his stride towards the finish of his race. This is the sort of horse that used to distinguish himself over the Beacon Course at Newmarket, when four-mile races were more in fashion than they now are, and was, of course, not thought the worse of by his owner, whatever he may have been by his jockey, for taking so much riding to make him do his best.

But the most ticklish and difficult horse, next to the determined restive one, or bolter, is what is known by the appellation of the "Flighty Horse," one which is as difficult to train as he is to ride, being delicate in constitution, of extremely irritable temper, and very easily alarmed, either in his stable or out of it. Nothing, in short, can be done with him, but by the very gentlest means; for if once ruffled, he is very hard to be appeased. The jockey, then, that has to ride a horse of this description, should have a

Horseman-
ship.

Horseman-ship temper the very reverse of his, and a hand as delicate as a woman's. He must also indulge him in every way in his race save one, which is, in not allowing him to overpace himself. But here, also, he must be careful; for this horse will neither bear to be pulled nor hustled, but must be let to go nearly in his own way, with the exception of being kept well together by a steady hold of his head. If challenged in the race, he must accept the challenge, and come out of the conflict as well as he can. He is too often a jade; at all events, he should always be ridden as if he were one; and the same precautions, as to steadiness of seat and hand, that we have recommended for the free-going horse, or hard puller, should be observed with regard to him.

Jockeys delight in riding a fine-tempered racer; such as Zinganee was in the year 1830, and of which year he was considered the best horse. In a plain snaffle bridle, without even a martingal, as he was ridden, and with an obedient mouth, it is a pleasing instead of an irksome task. A horse of this description is easily held, is kind at his turns, in fact, will nearly make them of his own accord; will either wait or make play, as his rider's orders may be; and when called upon to challenge, is ready to do his best. More than this, he is always going within himself, because he is obedient to his jockey's hand; and his temper is at least equal to 4 lb. weight in his favour.

We now conclude our remarks on jockeyship with a short description of the finish of a race, confining the scene of action to the last four hundred yards; the leading horses being, we will suppose, some head and girth, others head and neck, and others head and head. We will further suppose our jockey to be in the midst of them, with very little left in his horse, but just enough to win his race. The set-to is about to begin, or, in other words equally technical, he is about to "call upon his horse." But before he does this, he alters his position in his saddle. He has been previously standing up in his stirrups, with his body leaning forward over the horse's withers, and his hands down, somewhat below them. He now changes the position of both body and hands: he seats himself firmly down in his saddle, his body catching, as it were, the stride of the horse; and, raising his hands off his withers, first gives him an easy pull, and then, and not till then, the set-to begins. He now moves his hands, as if describing a circle, by way of rousing his horse, by "shaking him," as it is called; and although he does not quite slacken his reins, he allows him to reach with his head, as a distressed horse will always do, and which is technically termed "throwing him in." Then now comes the last resource. If he finds, when within a few yards of home, that he cannot win by these means, and that his horse appears to sink in the rally, he stabs him a few times with his spurs; gets his whip up in his right hand, giving a good pull with his left, and uses it as occasion may require.

Steeple-Chase Racing.—A new system of racing jockeyship has come into fashion in Great Britain and Ireland within the last twenty years, which, however in character with the daring spirit of our present race of sportsmen, we know not how to commend. We think it an unreasonable demand on the noble energies of the horse, to require him to go so very nearly at a racing pace (for such we find to be the case) over rough and soft ground, instead of upon smooth and elastic turf, with the addition of having too often a country selected for him to run across, abounding in almost insurmountable obstacles, as well as, in some cases, deep rivers, as likewise under a heavy weight. One human life has already been the victim of this practice, and we are sorry to say, several horses have died from overexerting themselves in steeple-chases. We have reason to believe, however, that they will not become a lasting amusement of British sportsmen.

VOL. XI.

Qualifications for a Steeple-Chase Rider.—These are **Horseman-ship** exactly what are wanting in a very fast run over a stiffly enclosed country with fox-hounds; namely, a fine bridle-hand, a steady seat, a cool head, undaunted courage, and, above all things, great quickness, and very prompt decision. But the steeple-chase jockey has one evil to guard against, which the racing jockey is, comparatively, but little subject to, and this is a fall. The best preventive of it is keeping a horse well together, and making him go in a collected form at his fences, as well as over rough ground, which, when going nearly at the top of his pace, will be only done by a rider with a very good bridle-hand. But, at the same time, he must be careful not to overmark his horse, or he will not be able to rise at his fences when he gets to them. And here lies the great difficulty after all, as far as the horse is concerned. He must go, at least he is called upon to go, at a much quicker rate than he can reasonably be expected to maintain, for any considerable length of time, without becoming distressed, because his competitors in the race are also doing so, and he will be left behind, to a certainty, if his rider do not endeavour to make him keep with them. That horse, then, has the best chance to win who, barring a fall, is the stoutest runner and surest fencer, and whose rider is good enough, and strong enough, to give him all the assistance he requires, at least as much as a rider can give him, to enable him to struggle through his difficulties to the end. But there is one quality in a horse, especially calculated for steeple-chase racing, and that is *quickness*. Our readers can distinguish between a quick horse and a fast horse; the fast horse may require to be going some time before he begins to extend himself nearly to the extent of his speed; whereas the quick horse is on his legs in a few hundred yards. A similar difference is observed by sportsmen in the fencing of horses. Some are on their legs again, and almost instantly away, as soon as they alight on the ground, be the fence ever so large, whilst others dwell for some time after landing, previously to their recovering their equilibrium, and so lose time. It is evident, then, that a quick horse, with a quick man on his back, is best adapted to a steeple-chase; and would beat another, supposing leaping and other qualifications, this excepted, to be equal, who could give him half a stone weight over the Beacon Course, and beat him. Steeple-chase racing never can be a game to bet money upon, from the almost perpetual liability to accidents; nor do we think it fair that such animal suffering as we find it creating, can be considered a proper medium for that purpose, allowing for a moment that such a medium must be found. But has man, who may be considered the delegate of Heaven over inferior creatures, the right thus to speculate upon their endurance of suffering? We think not; but of this fact we are certain, There is hardly a more certain token of a cruel disposition than the *unnecessary* abuse of animals which contribute, as the horse specially does, to our advantage, convenience, and pleasures; and even a Pagan has told us that he who smothers a cock, *without necessity*, is no less guilty than the man who smothers his father.

Neither is it a great compliment to this species of horsemanship to show its origin, which is thus given in a work called *The Gentleman's Recreation*, written nearly two hundred years back: "But before I enter upon the subject proposed," (training of horses) says the author, "I think it convenient to tell you the way our ancestors had of making their matches, and our modern way of deciding wagers; first, then, the old way of trial was, by running so many train scents after hounds, this being found not so uncertain and more durable than hare-hunting, and the advantage consisted in having the trains laid on earth most suitable to the nature of the horses. Now others choose to hunt the hare till such an hour prefixed, and then to run the *wild-goose chase*, which, because it is not known to all hunters

4 K

Horseman-ship. Horsley. men, I shall explain the use and manner of it. The wild-geese chase received its name from the manner of the flight which is made by wild-geese, which is generally one after another, so that two horses, after the running of twelve score yards, had liberty, which horse (qr. rider?) soever could get the leading, to ride what ground he pleased, the hindmost horse being bound to follow him within a certain distance, agreed on by articles, or else to be whipt up by the tryers or judges which rode by, and whichever horse could distance the other, won the match. But this chase was found by experience so inhumane, and so destructive to horses, especially when two good horses were matched, for neither

being able to distance the other, till ready bound to sink under their riders through weakness; oftentimes the match was fair to be drawn, and left undecided, *though both horses were quite spoiled.* This brought them to run train scents, which was afterwards changed to three heats, and a straight course." Our readers will acknowledge the resemblance between the modern steeple and the ancient wild-geese chase; and we trust that ere long, the example of our ancestors will be followed, and the man who is capable of exhibiting his horsemanship as the winner of a modern steeple-chase, will reserve his prowess for a better if not a nobler cause. (B. B. B.)

HORSENS, a town of Denmark, at the mouth of a fiord in Jutland, in the province of Ribe. It contains two churches, 504 houses, and 3650 inhabitants, who carry on fisheries, and some trade in corn and butter. Long. 9. 43. E. Lat. 55. 52.

HORSHAM, a market and borough town in the hundred of East Easewrith, and rape of Bramber, in the county of Sussex, thirty-six miles from London. It is an ancient place, according to tradition, built by Horsa, the brother of the Saxon Hengist. It stands on the upper part of the river Arun, in a fertile district. The county jail, a new building, is in the town, and also a county-hall, in which the assizes are held alternately with the town of Lewis. It is an ancient borough by prescription, and returned two members to parliament till 1832. It now returns one by about 600 voters. The market is held on Saturday, and well supplied. The inhabitants amounted in 1801 to 3204, in 1811 to 3839, in 1821 to 4575, and in 1831 to 5105.

HORSLEY, a town and parish in the hundred of Longtrees, in the county of Gloucester, 101 miles from London. It has a market, which is held on Saturday. The county bridewell is established here. There is some trade in making woollen goods. Formerly a priory existed, whose remains are still visible. The inhabitants amounted in 1801 to 2971, in 1811 to 2925, in 1821 to 3565, and in 1831 to 3690.

HORSLEY, SAMUEL, a very learned prelate of the church of England, the son of the Rev. John Horsley, for many years clerk in orders at St Martin's in the Fields, and afterwards rector of Thorley in Hertfordshire, was born at his father's residence in St Martin's churchyard, in October 1733. He received his early education from his father, and was entered at Trinity-hall, Cambridge, where he applied himself much to the study of mathematics, but, at the same time, perused with care the writings of the ancient and modern divines and logicians. Why he took no degree in arts cannot now be ascertained; we find, however, that, in 1758, he took that of bachelor of laws, and became his father's curate at Newington, which living he succeeded to the following year, and held until his elevation to the Episcopal bench in 1793, as Bishop of Rochester.

In April 1767, he was elected a fellow of the Royal Society, of which he continued for many years an active member, and, about the same time, he published a pamphlet on the Power of God, "deduced from the computable instantaneous productions of it in the solar system." This he allows to be a "very singular and whimsical speculation;" and observes respecting it, that, in all probability, it would "roll down the gutter of time, forgotten and neglected." In 1768, he went to Christ-Church, Oxford, as private tutor to Heneage Earl of Aylesbury, then Lord Guernsey. In 1770, his first mathematical publication, *Apollonii Pergæi Inclinationum libri duo*, was elegantly printed at the Clarendon press. This work, though severely criticised at the time, and, in reality, not distinguished by any peculiar

felicity of restoration, does not appear to have injured his rising reputation; for, in November 1773, he was appointed secretary to the Royal Society, and in 1774 he had the degree of doctor of civil law conferred on him at Oxford, and was presented by the Earl of Aylesbury to the rectory of Aldbury in Surrey, along with which he obtained a dispensation to hold that of Newington. The same year he published *Remarks on the Observations made in the Voyage towards the North Pole, for determining the acceleration of the Pendulum in latitude 79° 51'.* These were addressed to the Hon. Constantine J. Phipps, 4th, and intended to correct some errors committed by Israel Lyons, the mathematician employed on the voyage.

Dr Horsley having long meditated a complete edition of the works of Sir Isaac Newton, issued, in 1776, proposals for printing it by subscription, in five volumes 4to; but the commencement of the undertaking was delayed by severe domestic affliction, nor was it completed until 1785. In the meanwhile, his diligence and proficiency in science attracted the notice of Dr Lowth, who, on his promotion to the see of London in 1777, appointed Dr Horsley his domestic chaplain, collated him to a prebend in St Paul's cathedral, and procured for him the situation, which had been held by his father, of clerk in orders at St Martin's in the Fields. In 1778, during the controversy between Dr Priestley, Dr Price, and others, on the subject of materialism and philosophical necessity, Dr Horsley published a sermon on Providence and Free Agency, in which he attempted to draw a distinction between the philosophical necessity of the moderns and the predestination of their ancestors. This discourse was evidently directed against the writings of Dr Priestley, but the latter did not take any immediate notice of the attack. In 1779, Dr Horsley resigned Aldbury, and, in 1780, was presented to the living of Thorley, which he held, by dispensation, along with that of Newington. In 1783, he became deeply involved in a dispute with some members of the Royal Society, which ended in his withdrawing himself from that learned body.

Dr Horsley was now about to engage in that celebrated controversy with Dr Priestley, which was conducted on both sides in the fiercest spirit of polemical contention, but on that of Horsley with superior learning and ability. In 1782, Dr Priestley published a work in two volumes 8vo, entitled a *History of the Corruptions of Christianity*; at the head of which he placed both the Catholic doctrine of Christ's divinity, and the Arian doctrine of his pre-existence, in a nature far superior to the human, at the same time representing the Socinian doctrine of his mere humanity as the unanimous faith of the first Christians. Dr Horsley conceiving that the best antidote to the poison contained in this work would be to destroy the credit of the writer, and the authority of his name, made its imperfections, moral as well as literary, the subject of review in a charge delivered to the clergy of the archdeaconry of St Alban's, at a deputation held on the 22d of May 1783. The specimens produced as evidence of the imperfections of the work and the incom-

Horsley. petency of the author, may be reduced to six classes. First, instances of reasoning in a circle; second, instances of quotations misapplied through ignorance of the subject; third, instances of testimonies perverted through artful and forced constructions; fourth, instances of passages in the Greek fathers misinterpreted through ignorance of the Greek language; fifth, instances of passages misinterpreted through ignorance of the Platonic philosophy; and, sixth, instances of ignorance of the phraseology of the earliest ecclesiastical writers. Dr Horsley concludes his charge by observing, "I feel no satisfaction in detecting the weakness of this learned writer's argument, but what arises from the consciousness that it is the discharge of some part of the duty which I owe to the Church of God." This vigorous and systematic attack staggered the admirers of Dr Priestley; but he himself felt none of the apprehension with which they were seized. He promised an early and satisfactory answer; predicted that he would rise from his supposed defeat more illustrious than ever; undertook to strengthen the evidence in support of his favourite opinions; flattered himself that he would find a new convert in his antagonist; and even hinted something concerning the shame and remorse with which he felt confident that the latter must be penetrated. Dr Priestley could not but be sensible that his adversary was a man of no ordinary stamp; yet, with a blind self-confidence, he did not profit by this conviction so as to make a careful revision of his writings, but, on the contrary, immediately repeated his former assertions respecting the doctrine of the Trinity, in a publication entitled, *Letters to Dr Horsley, in answer to his Animadversions on the History of the Corruptions of Christianity*, with additional evidence that the primitive Christian Church was Unitarian, 1783, in 8vo. To this production, in which there are more errors of haste and infirmities of argument than could have been expected from one who had so much at stake, Dr Horsley replied in the same epistolary form, by *Letters from the Archdeacon of St Alban's in reply to Dr Priestley*. The object of these letters, which are seventeen in number, and display great learning and research, is to prove that if the mistakes of Dr Priestley, formerly pointed out, are few in number, they are too considerable in kind to be incident to a well-informed writer; that they betray a want of general comprehension of the subject, and an incapacity to draw right conclusions from the passages cited; that they prove him unskilled in the language of the writers from whom his proofs were professedly derived, and unacquainted with that philosophy, the doctrines of which he pretended to compare with the opinions entertained by the church. Dr Priestley, in his *Letters*, had attempted to draw his adversary into a controversy respecting the divinity of Jesus Christ; but the latter, knowing that question to have been long since exhausted, defended his own argument, and confined himself to the collection of proofs, from Dr Priestley's publications, of his inability to throw any light upon the subject.

Dr Priestley, finding that his letters had failed to produce the expected impression, and that his antagonist, untouched with either shame or remorse, remained unshaken in his opinion, now lost all temper; and in a second set of *Letters to the Archdeacon of St Alban's*, which appeared in the autumn of 1784, threw aside all profession of personal regard, or even of ordinary civility. The charge of incompetency and ignorance was warmly retorted, and "the incorrigible dignitary" was charged with manifest misrepresentation of his adversary's argument; with injustice to the character of Origen, whose veracity he had called in question; and with the grossest perversion of ancient history. In a word, he was stigmatised as a "falsifier of history, and a defamer of the character of the dead." Regardless of this reproach, Dr Horsley remained silent for eighteen months. A sermon on the Incarnation, preached

upon the feast of the Nativity in 1785, formed the prelude to the renewal of the contest on his part, and was, early in the ensuing spring, followed by *Remarks on Dr Priestley's Second Letters to the Archdeacon of St Alban's*, with proofs of certain facts asserted by the Archdeacon. This tract consists of two parts; one containing new specimens of Dr Priestley's temerity in assertion; and the other defending the attack upon Origen, and proving the existence of a body of Christians at *Ælia* after the time of Hadrian, which was the fact upon which the Archdeacon's historical fidelity had been so loudly arraigned by Dr Priestley. With this publication Dr Horsley had intended that the controversy on his part should close; but having been induced to collect and republish what he had written (in one vol. 8vo, 1789), this led to a second perusal of Dr Priestley's *Letters*, which produced not only many important notes, but some disquisitions of considerable length; and as the *Remarks on Dr Priestley's second Letters* had elicited a third set, in which he endeavoured to support the veracity of Origen, and to maintain his position respecting the orthodox Hebrews of the church at *Ælia*, these are replied to partly in the notes, and partly also in two of the disquisitions. Towards the conclusion of his *Remarks*, Dr Horsley observes: "These and many other glaring instances of unfinished criticism, weak argument, and unjustifiable art, to cover the weakness and supply the want of argument, which must strike every one who takes the trouble to look through those second letters, put me quite at ease with respect to the judgment which the public would be apt to form between my antagonist and me, and confirmed me in the resolution of making no reply to him, and of troubling the public no more upon the subject, except so far as might be necessary to establish some facts, which he hath somewhat too peremptorily denied; and to vindicate my character from aspersions which he hath too inconsiderately thrown out."

The reputation which Dr Horsley had now acquired, recommended him to the patronage of Lord Chancellor Thurlow, who presented him to a prebendal stall in the cathedral of Gloucester; and, by the interest of the same eminent person, he was, in 1788, promoted to the see of St David's. As a bishop, his conduct was exemplary and praiseworthy; in this character he fully answered the high expectations of eminent usefulness, which his elevation to the mitre had so generally raised. In his diocese, he carried through a general system of reform, regulated the condition of the clergy, introduced greater strictness with respect to candidates for admission into holy orders, preached frequently in the parish churches, and acted with Christian liberality towards the poor. Bishop Horsley's first charge to the clergy of St David's was delivered in 1790, and deservedly admired, as was also his animated speech in the House of Lords, 31st May 1791, on the subject of the Catholic Bill. These effective displays are understood to have occasioned his subsequent promotion to the bishopric of Rochester and the deanery of Westminster, upon which he resigned the living of Newington.

During the agitating period between 1793 and the close of the century, Bishop Horsley ranged himself on the side of the government, and with great zeal and warmth opposed the enemies of the constitution, and the professors of democratic principles, under which categories were then included all those who sought for reform in the representation of the people as a guarantee for the removal of abuses, and the progressive improvement of our institutions, ecclesiastical as well as civil. As a senator, his talents and activity necessarily gave him weight; and there were few discussions of importance in which he did not take part. He was not, however, an every-day speaker, nor desirous of protracting the debate, unless he had something original or important to communicate. In 1802, he was translated

Horsley.

Horsley. to the bishopric of St Asaph, and resigned the deanery of Westminster. Until 1806, his vigour of body and mind remained unimpaired. In the month of July of that year he went to his diocese, and after a residence of two months intended to visit his patron Lord Thurlow at Brighton, where he arrived on the 20th of September, after learning on the road that his noble friend was no more. On the 30th, he became affected with a complaint in the bowels, which, slight at first, soon terminated in mortification, and on the 4th of October proved fatal. Bishop Horsley died in the seventy-third year of his age.

Dr Horsley was throughout life an indefatigable student; he indulged no indolence in youth, and amidst an accumulation of preferments, contemplated no time when he might rest from his labours. His mind was constantly intent on some pursuit, and, setting a high value upon the fame he had acquired, his ambition was to justify the favourable opinion of the public, and the liberality of his patrons. In classical acquirements, and in the critical knowledge of the languages in which the sacred books were originally written, he stood in the very first rank of excellence. In the mathematical and physical sciences, if he stood not in the first rank, he occupied at least a very respectable station. In metaphysical acuteness and research, he had probably few superiors; whilst, in his proper science of theology, we will venture to affirm that he had none. The ablest champion of orthodoxy that the church had for many years seen, he was so much of an original thinker, and so independent of his predecessors or contemporaries, that his mode of defence was entirely his own, and his style and manner, like Warburton's and Johnson's, though dangerous to imitate, were nevertheless the best, perhaps, that could have been devised in the conflict of opinions with which he was surrounded. In his writings, as in his character, there was nothing lukewarm, nothing compromising. His character and manner were indeed somewhat harsh, and arrogant, and dogmatical; but, whilst due allowance must be made for the heats and errors which controversy engenders, charity induces us to believe that much of his apparent asperity arose from his zeal for the truth, and his high sense of its importance, and that, in fact, he possessed more genuine liberality than some of his most clamorous opponents. He was classed, indeed, and he classed himself amongst High-churchmen; but he was no doubt perfectly sincere in his attachment to the constitution and doctrines of the Church of England; and on more than one occasion he gave proof that he understood the great principles of practical toleration better than some who made louder pretensions to liberality. It is certain, indeed, that he was not only willing, but anxious, to enter into a Parliamentary inquiry into the claims of the Roman Catholics of Ireland, and to grant them whatever that inquiry might shew could be granted with security to the Protestant Establishment, and the Protestant succession.

In his fierce controversy with Dr Priestley, Bishop Horsley had a manifest advantage both in learning and argument; and when we reflect that his adversary aimed at nothing less than the overthrow of the English establishment, and avowed his purpose in language not remarkable either for modesty or for delicacy, we cannot justly wonder that he used strong language in return. Yet it is dignified language; and will not now, perhaps, appear to any candid reader, to be much stronger than the case required. The concluding paragraph of his *Remarks upon Dr Priestley's Second Letters*, affords a striking specimen of his manner as well as of his temper; of a manner, no doubt, sufficiently authoritative and decided, but of a temper which appears to us entitled to the name of Christian. "For eighteen months or more," says he, "it hath been the boast of the Unitarian party, that the Archdeacon of St Alban's hath been challenged to establish facts which he had averred;

that he hath been insulted in his character, as a scholar and a man; charged with ignorance, misrepresentation, defamation, and calumny; and that, under all this, he hath continued speechless. He hath at last spoken, in a tone which, perhaps, will little endear him to the Unitarian zealots. It matters not. The time seems yet so distant when the train which they are laying may be expected to explode, that the danger is exceedingly small that he will ever be reduced to the alternative of renouncing his faith, or relinquishing his preferments; or to the harder alternative which Dr Priestley seems to threaten, of a prison with a good conscience, or his present emoluments without one. If those happy times of which Dr Priestley prophesies, should overtake him ere his course is finished; when an Arian or Socinian Parliament shall undertake the blessed business of a second reformation, and depose archbishops from their thrones, and archdeacons from their couches of preferment; he humbly hopes that he may be supplied with fortitude to act the part which may not disgrace his present professions. The probability, however, seems to be, that ere those times arrive (if they arrive at all, which we trust they will not), my antagonist and I shall both be gone to those unseen abodes, where the din of controversy, and the din of war, are equally unheard. There we shall rest together, till the last trumpet summon us to stand before our God and King. That whatever of intemperate wrath, and carnal anger hath mixed itself, on either side, with the zeal with which we have pursued our fierce contention, may then be forgiven to us both, is a prayer which I breathe from the bottom of my soul, and to which my antagonist, if he hath any part in the spirit of a Christian, upon his bended knees will say AMEN."

As a preacher, or rather as a writer of sermons, Bishop Horsley must be allowed to stand in the first class, yet we do not know with whom in that class we can well compare him. In force, depth, and erudition, in precision and distinctness of ideas, in aptitude and vigour of expression, and, above all, in the original powers of thinking displayed in them, Dr Horsley's discourses are unquestionably *sui generis*. But difficult as the subjects often are, which he discusses in them, even ordinary readers, moderately conversant with the Bible, and with the theory and practice of their religion, may derive more advantage from them than from any volumes of sermons which have issued from the press for more than half a century. Even difficulties, and very serious difficulties, Dr Horsley frequently renders plain and practical, by clear, patient, and ingenious criticism; and having fixed his principle on a scriptural ground, and made that ground comparatively clear and easy, he enforces the practical consequences on that direct authority of God which, within the walls of a Christian church, ought to supersede every other. Dr Clarke, in his sermons, which stand in the very first rank of excellence, often treats and largely discusses, Christian subjects, the mysteries of redemption, and the various positive ordinances of the gospel. But he does so with this remarkable difference from Bishop Horsley, that he is never satisfied with any scriptural principle or precept, till he has laboured to render it conformable to what he calls *eternal reason and the fitness of things*. Thus, even on subjects of which we should never have known any thing but from Scripture, and which derive all their importance and authority from revelation, we are frequently perplexed with thorny and intricate discussions, intended to accommodate them to this eternal reason and immutable relation of things. The evil of such discussions is, that they are apt to leave an impression on the mind that the obligations of duty rest on something different from, and independent of, the will of God; whereas, to a Christian, the source of the obligation, whether as respects moral or religious duties, is beyond all controversy, the revealed will of God

Hort.
Hortensius.

alone. Hence it was that Bishop Horsley, when he had distinctly traced a principle, doctrine, or precept to Scripture, justly conceived that he had done all which a Christian could require to enforce obedience. It may be interesting, it may even be important, to trace the admirable conformity which subsists between the revealed will of God, and the same will as it may be deduced from the nature of things, and the condition of man; but it never can be absolutely necessary to establish this conformity; for whether we are able to trace it or not, the Christian obligation is the same. The supposition that revelation may, in every instance, be accommodated to reason, or, in other words, that a conformity can always be traced between the dictates of reason and the doctrines of Scripture, is a supposition not only fraught with danger, but incompatible with the very import of the term revelation, which necessarily implies the disclosure to man of that which reason could never have informed him of.

Besides the works already mentioned, Bishop Horsley was the author of the following, viz. 1. On the Properties of the Greek and Latin Languages, 1796, in 8vo; 2. On the Achronical Rising of the Pleiades, appended to Dr Vincent's *Voyage of Nearchus*, 1797; 3. A Circular Letter to the Diocese of Rochester, on the Scarcity of Corn, 1796; 4. Another Circular Letter to that Diocese on the Defence of the Kingdom, 1798; 5. Critical Disquisitions on the 18th chapter of Isaiah, 1799, in 4to; 6. Hosea translated from the Hebrew, with Notes explanatory and critical, 1801, in 4to; 7. Elementary Treatises on the fundamental principles of Practical Mathematics, for the use of Students, 1801, in 8vo. Since his death have appeared, 1. Sermons, 1810 and 1812, in three vols. 8vo; 2. Tracts in controversy with Dr Priestley, upon the historical question of the belief of the first ages in the Divinity of Jesus Christ, revised and augmented by the author, with an appendix by his Son, 1812, in 8vo; 3. The Speeches in Parliament of Samuel Horsley, 1813; and, 4. The Charges delivered at his several visitations of the dioceses of St David's, Rochester, and St Asaph, 1813, in 8vo.—(Chalmers's *Biog. Dict.* art. HORSLEY; *Edinburgh Review*, vol. xvii. p. 465, 468.)

(A.) HORST, a town of the Netherlands, in the province of Limburg, and circle of Ruremont. It contains 2246 inhabitants; but is an extensive parish, which has a population of 4490, who are occupied in weaving linen and cotton goods.

HORTENSIUS, QUINTUS, one of the most celebrated orators that Rome produced, the contemporary and rival of Cicero, was born B. C. 114, and eight years before Cicero. He was son of L. Hortensius, who had distinguished himself in his prætorship in Rome, and proconsulship in Italy, by a strict adherence to justice and the ancient laws of his country. His mother Sempronia was grand-daughter to Tuditanus. Of the manner in which he spent his earlier years, we have received no information; but we find him at the age of nineteen (B. C. 95), at once taking a distinguished place amongst the orators of his country. (*Cic. Br.* 64.) The first cause which he undertook was that of Africa, in which he was eminently successful; and shortly afterwards he was employed by the king of Bithynia in his defence before the senate. The breaking out of the Social War, B. C. 90, so alarmed the Romans for the very existence of their power, that all domestic proceedings were for

Hortensius.

a time suspended, and the youth enrolled themselves for the defence of their country. Hortensius, like others of his own age, joined the army, and in the second campaign was raised to the rank of tribune. It does not appear, however, that he possessed military talents, as we do not find him taking an active part in any warlike proceedings. His ædileship was distinguished by the magnificence of his exhibition of the public games, and by a gratuitous distribution of corn among the people. It was in 70 B. C. that he was first directly opposed to Cicero in the celebrated trial of Verres, but notwithstanding the utmost efforts of his eloquence, Verres was brought in guilty of the charges which Cicero brought against him. The following year (B. C. 69) we find him raised to the consulship, along with Q. Cecilius Metellus; but it was a period during which Rome enjoyed profound peace at Rome, whilst she was triumphing over Mithridates in the east by the arms of Lucullus. The conduct of the war against the Cretans fell by lot to Hortensius, but feeling that the proper arena for the display of his talents was in the peaceful contests of the Forum, he refused to leave Rome, and gave up the commission to his colleague Metellus, who derived the name of Creticus from the subjugation of the island. (*Xiphilin. Epit. Dion.* tom. i. p. 75.) He amassed great riches, and became remarkable for the magnificence of his villas, and his sumptuous mode of living. He opposed with success a sumptuary law proposed by Pompey and Crassus (*Dion.*); and resisted the proposals of Gabinius and Manilius to invest Pompey with powers of so extraordinary a nature, that they seemed calculated to annihilate the independence of Rome. Though the most formidable rival of Cicero in the Forum, he was the intimate and affectionate friend of that orator; and when Clodius threatened Cicero with exile, Hortensius appeared in the assembly of the people in deep mourning, and was attacked by the slaves of that factious tribune. (*Cic. Mil.* 14.) In his latter years, he did not exert himself to maintain the rank to which he had attained, and allowed his glory to be eclipsed by the wonderful powers of eloquence displayed by Cicero. A few days before his death, B. C. 50, he defended the cause of Appius Claudius; and it was in consequence of the exertions which he made in that case that he broke a blood-vessel, which put an end to his life. (*Cic. Br.* 94; *Ep. Fam.* viii. 13; *Ep. Att.* vi. 6. Hortensius was first married to Lutatia, the daughter of the celebrated Lutatius Catullus, by whom he had a son, whose conduct gave him great cause of uneasiness, and a daughter, Hortensia, distinguished for her talents, who married Valerius Messala. Hortensius afterwards contracted a second marriage with Marcia, daughter of Philippus, and wife of Cato. This transaction was of a very extraordinary nature, and was little to the honour of any of the parties; but the details may be read in Plutarch (*Life of Cato*). As none of his writings have been preserved, we are without the means of forming an opinion of his eloquence, except from the statements of the ancients. It was highly ornamented, flowery, and even more Asiatic in its character than that of Cicero. His style was full of animation, and his composition was extremely polished. Hortensius also cultivated poetry with success. (*Ovid. Trist.* ii. 441; *Aul. Gell.* xix. 9. See Sallier, *Recherches sur la Vie de Q. Hort.* in the *Mém. de l'Acad. des Inscript.* vi. 500. Luzac. *Specimen historic. jurisdic. de Q. Hort. oratore*, Lugd. Bat. 1810. Tiraboschi *Storia della Letterat. Italiana*, iii. 2.)

HORTICULTURE.

Introduction.

HORTICULTURE is that branch of rural economy which consists in the formation and culture of Gardens. Its results are culinary vegetables, fruits, and flowers. On one side it is allied to Agriculture, from which, however, it is distinguished by the nature of its products, and by the smaller extent and greater complexity of its operations; on the other side, in its processes of embellishment, it approaches the arts of the Landscape Artist and the Forester, from which, however, it also retires in the comparative minuteness of its details. Respecting the former of these departments of rural art, considered as distinct from Horticulture, information may be obtained in the article on GARDENING.

Like other arts, Horticulture borrows its principles from the general sciences. To Botany it is beholden for the facts and theories of vegetable physiology; to Chemistry for assistance in reference to soils, manures, and artificial heat; and to Meteorology for a knowledge of many circumstances which very materially affect the labours of the gardener. On these subjects, with which the philosophical horticulturist will not fail to make himself familiar, we refer to the various scientific articles in this Encyclopædia. It is very desirable that such information should be extensively diffused among *practical* men; as it is only from this quarter that much improvement, in our present state of knowledge, can be expected. Truth, however, obliges us to admit, that gardening has been most successfully practised, when treated as an empirical art. Few of those who are minutely conversant with its numerous manipulations have undergone such an intellectual training as to enable them to wield general principles with effect. Many who are not inexpert or unsuccessful while they follow the routine practice (a practice, be it remembered, founded on long experience) egregiously fail, when, with imperfect information, or ill-advised ingenuity, they endeavour to strike out new paths for themselves. The object of the art, too, limits the application of the deductions of science. Its whole business consists in the imitation of Nature, whose processes may indeed be, in some measure, originated, as when a seed is inserted in the ground, or modified, as in the artificial training of fruit-trees, but which may not be entirely controlled, much less counteracted. The principle of vegetable life will not endure interference beyond a certain point, and our theoretical views should be so directed as to interfere with it as little as possible. Observation and experiment are the grand means by which the art has arrived at its present state of advancement: at the same time it is obvious, that an enlarged acquaintance with science will aid us in imitating the processes of nature, will guide the hand of experiment, suggest contrivances, and enable us to guard against error; and above all, will tend to dispel those prejudices which practitioners in the empirical arts are so prone to cherish.

Gardening, Mr Walpole observes, was probably one of the first arts which succeeded to that of building houses, and naturally attended property and individual possession. Culinary, and afterwards medicinal herbs, were objects in request by every head of a family; and it became convenient to have them within reach, without searching for them in woods, in meadows, or on mountains, as they were wanted. Separate enclosures for rearing herbs were soon found expedient. Fruits were in the same predicament; and those most in use, or the cultivation of which required particular attention, must early have entered into and extended the domestic enclosure. Such may be deemed the leading heads of a conjectural history of the art; and indeed,

if we would ascend into remote antiquity, we can have recourse only to conjecture, for although, in the Sacred Writings, and in the earliest profane authors, allusions to gardens occur, little is told us either of their productions or their culture. At the close of the Roman commonwealth, the catalogue of fruits had become considerable, the principles of grafting and pruning were understood and practised, and shortly afterwards, even artificial heat seems to have been partially employed. With the decline of the empire, horticulture also declined or became stationary; but at the revival of learning, it arose from the slumber of the dark ages, encumbered, it is true, by the dreams of the alchymists, the restrictions of unlucky days, and the imaginary effects of lunar influence. From these fetters it was ere long emancipated by the diffusion of knowledge, and it has hitherto kept pace with the general improvement of society. Modified by climate and other circumstances in different countries, its advancement has been various; but nowhere has it made greater progress than amongst ourselves. Introduced into England at an early period, gardening became conspicuous in the reign of Henry VIII. and his immediate successors, and met with considerable attention during the reigns of the Stuarts. In the first half of the eighteenth century, Miller, Switzer, and others, laboured with success in improving the operations, and unfolding the principles, of the art; and these were succeeded by Abercrombie, Speechly, and a host of writers, who added greatly to our stores of knowledge. In 1805 was established the Horticultural Society of London, which was soon followed by the institution of the Caledonian Horticultural Society at Edinburgh; and in their train have sprung up a multitude of provincial gardening societies, all of which have given an impulse to the public mind, and stimulated the exertions of individuals. Experimental gardens have been formed, in which, amongst other things, the important work of distinguishing and classifying the numerous varieties of our hardy fruits has been zealously prosecuted. The mass of information now collected is immense, and the labour expended in its diffusion unwearied. Judging from the literature of the day, and passing downward from the sumptuous Transactions of the metropolitan Society, through the numerous periodicals, to the penny information, for the people, we shall scarcely find any art, however nationally important, which receives more attention, or on which the liberality of the wealthy is more abundantly bestowed. The public nursery-gardens, too, both at London and elsewhere, establishments intimately connected with our subject, and which, in a manufacturing nation, are not the least wonderful amongst the applications of skill and capital, prove the extent and perfection to which gardening has advanced. Although, however, there is not, perhaps, in the annals of invention, a chapter of higher interest than the history of Horticulture, our limits do not permit us to enter further into details: we must therefore refer to Loudon's *Encyclopædia of Gardening*, a work which, for minuteness of exposition, and copiousness of illustration, is unrivalled amongst the didactic treatises of our times.

We intend to confine our attention almost exclusively to the horticulture of Great Britain, and we shall endeavour to give such an exhibition of its practice as may suit the middle districts of the island. The objects of culture are so numerous, the operations so varied, and the materials so copious, that, in presenting what can claim only the character of a sketch of our subject, it will be necessary to follow a plan of selection. It would be unprofitable to de-

Introduction.

Fruit and Kitchen Garden. scribe all the methods of culture in practice; we shall therefore notice such only as are deemed the best.

The subject naturally divides itself into the Fruit, the Kitchen, and the Flower Garden; but as the first two generally occupy the same locality, or are intermingled with each other, and as every thing connected with their formation is inseparably involved, we shall, to some extent, take them together. Then will follow the Flower-Garden; and by way of conclusion to the whole, a short Calendar.

FRUIT AND KITCHEN GARDEN.

In this department are cultivated the articles which are necessary for the supply of the kitchen and the dessert table. It is inclosed within walls, not only for the sake of security and general shelter, but, in our climate, as affording the means of cultivating the finer fruits, by training the trees close to the walls. It is furnished with hot-houses, melon-frames, and similar contrivances, by which the fruits of other climates are subjected to an artificially increased temperature, and thus brought to maturity. The size of a walled garden ought evidently to bear some proportion to the splendour of the mansion-house of which it is an appendage, to the extent of the park, and the means of the family. Where the demand is large, such a garden should comprehend from four to six acres. In many places this extent will not afford an adequate supply of culinary vegetables, but some of the bulkier crops, such as pease, potatoes, and turnips, may be grown in the exterior fields. From an acre and a half to three acres may be regarded as forming a respectable garden; but, within the limits already mentioned, it is better, in the first formation of a garden, to enclose too large a space than too small a one.

The productiveness of such an establishment will depend chiefly upon the natural fertility of the soil, and the eligibility of the situation, but also in a considerable degree upon the labour expended upon the culture. Where a garden is *underworked* (to use a gardener's phrase), the finer products must necessarily be scanty, for whatever requires care, requires time; and it not unfrequently happens that a gardener fails in some crop, not from defect of method or skill, but because he has not been able to overtake it, or has been obliged to make his preparations in a hurried and insufficient manner. All circumstances being favourable, a British garden is perhaps unrivalled in fertility by any cultivated spot in the world. A copious supply of esculents flows into the kitchen at all seasons; and after a rich abundance of fruit has been afforded during summer and autumn, the winter stores may be easily prolonged till the early forced fruits come again to the table.

We shall first treat of the general properties and appendages of the Fruit and Kitchen Garden.

Situation.—The position of the garden in relation to the mansion-house, properly belongs to the province of Landscape-Gardening, as it obviously should be in keeping with the general features of the park scenery. It may, however, be remarked, that, as a place of interest to every well-informed proprietor, it should be so near as to be conveniently accessible on foot, probably within little more than a quarter of a mile; while it should be so distant as to avoid the possibility of offence arising from gardening operations and the resort of workmen. A position on one side of the house is to be preferred, unless a much more eligible one occur in the rear. Wherever it be placed, it should be so masked by evergreen shrubs and trees, as not to be visible from the principal lawns, or from the walks in the shrubbery and flower-garden. If the surface of the domain be undulated, the garden is almost unavoidably seen from some point or other, and the *coup-d'œil* of the enclosure

Fruit and Kitchen Garden. walls is apt to present the idea of a large box; an unpleasant impression, which should by all means be avoided or lessened by plantations judiciously placed.

Ground possessing a gentle inclination toward the south is desirable for a garden. On such a slope effectual draining is easily accomplished, and the greatest possible benefit is derived from the sun's rays. The lower part of a gentle declivity is perhaps to be preferred; but a very low situation should scarcely be chosen, as the subsoil is apt to be damp, fogs often brood over such spots, and frosts are more injurious there than on higher ground. It is beneficial to have an open exposure towards the east and west, so that the garden may enjoy the full benefit of the morning and evening sun.

Shelter is absolutely necessary; and that afforded by natural objects, such as rising grounds, is the best. Where this is wanting, its place should be supplied by masses of forest-trees, disposed at such a distance, however, as not to shade the wall-trees, perhaps not nearer than 150 feet. The purpose of such screens is to break the force of the winds; and as every situation is, in this respect, liable to some peculiarities occasioned by the general structure of the country, or by the reverberation of aerial currents from adjacent eminences, these peculiarities should be carefully observed and obviated. The idea that crowded plantations increase the warmth of a place is often fallacious; and, in the opinion of many, they do more harm than good, by encouraging blight. The trees employed may be of a varied character, but lime-tree, horse-chestnut, beech, sycamore, weeping birch, and the smooth-leaved wych elm, should prevail. There may also be a proportion of evergreen trees, such as firs, pines, hollies, and evergreen oaks. When these masses of wood are planted at the time the garden is formed, poplars, larches, and other fast-growing trees, should be thickly intermixed to act as temporary trees and nurses, which are afterwards to be weeded out, as the permanent trees more slowly advance to maturity.

A supply of *water* is equally necessary. Where a streamlet can be made to flow through the garden, and keep a central pond constantly full, it will conduce both to utility and amenity. If this cannot be effected, a pipe of sufficient caliber should be led from some neighbouring pond to the hot-houses, and to two or three different stations in the garden. Well or spring water should be exposed in tanks or reservoirs to the action of the sun and air, when it becomes comparatively soft and salubrious for plants. As rain water is found better than any other for this purpose, all that can be collected should be stored and kept for use.

Connected with the situation is the *approach* to the garden from without, a matter requiring some taste and contrivance. If possible, it should be from the south, when the range of glazed houses will be seen at once, and produce a pleasing effect. Sometimes a lateral entrance is very suitable, leading, it may be supposed, from the flower-garden through an intermediate shrubbery, and coming upon the hot-houses in flank. It is delightful to be introduced at once and by surprise into a Slip, as it is called, where on the one hand there is an extent of wall covered with luxuriant fruit-trees in full bearing, and on the other is displayed a rich collection of ornamental shrubs and large perennial border-flowers.

Form.—The form of a garden, it is obvious, must chiefly be determined by the nature of the situation and the taste of the proprietor. In general, gardens are either squares or oblongs, chiefly, it is presumed, because walls of this configuration contain the greatest space within the least perimeter, a result of very questionable value. They may be of any form, with this limitation, that attention should be paid to facilitating the transport of manures and garden products, for when the grounds are straggling, or compli-

Fruit and
Kitchen
Garden.

cated in structure, the labour of cultivation is much increased.

Exterior Fence.—Most gardens are encircled by an outer boundary, formed by a sunk wall or ha-ha, surmounted by an invisible wire fence to exclude hares, or by a hedge and paling. Occasionally this sunk wall is placed on the exterior of the screen plantations, and walks lead out among the trees, to give favourable views of the adjacent country. Although the interior garden receives its form from the walls, the ring fence and plantations may be adapted to the shape and surface of the ground. The spaces between the outer fence and the walls are, as already noticed, called *Slips*, and, where circumstances render it eligible, a considerable extent of ground is sometimes included, and appropriated to the culture of small fruits and vegetables. If possible, the gardener's house should be situate here, as being convenient for him, and as tending to scare depredators.

Walls.—For the production of the finer fruits, such as peaches, apricots, hardy grapes, and most of the delicate French and Flemish pears, the aid of walls is indispensable in our climate. Indeed, in the northern and higher parts of the country, where there is no walled garden, the dessert can seldom consist of more than small fruits, and ill-ripened apples and pears. So valuable in this respect are walls, that it is perhaps a matter of surprise that they have not been multiplied by the erection of slight and cheap structures, such as are common in the peach-gardens in France. The north wall having, in the interior, a south aspect, is of course appropriated to the more tender kinds of fruit-trees; here, it is generally estimated, they enjoy an increased temperature equal to 7° of south latitude; the east and west walls are set apart for fruits of a somewhat hardier character; while the inner face of the south wall, having a north aspect, is well adapted for retarding *Morella* cherries and currants.

The north wall is generally placed nearly perpendicular to the meridian, that is, so as to have the sun directly in front at 12 o'clock. Minute directions have indeed been given to make it face towards 11 or 11½ A. M., on the ground that thus it would sooner meet the rays of the morning sun; but it does not appear that this arrangement has been the subject of direct experiment, and certainly the arguments, by which the superiority of this aspect is supported, are far from being satisfactory. The east and west walls are commonly placed at right-angles to that already mentioned, but they may follow the shape of the ground, and if this slope to the south, they descend with the declivity. The south enclosure wall, as affording on the outside a valuable aspect to the south, is deserving of particular attention. It is presumed that the walls are to be covered, both within and without, with trees trained *en espalier*.

Different portions of the enclosure wall are always built of different heights, and this variation of height is the more necessary, when the ground approaches to a level. In such a situation, and when the enclosure does not exceed two acres, the north wall may rise to the elevation of 14 feet; the walls on the east and west may be two feet lower, and the south wall need not exceed 10 feet. In larger gardens, the walls are generally made proportionally higher: on the north, perhaps 16 feet, on the east and west 14, and on the south 12. In several excellent Scottish gardens planned by Mr John Hay, such as that at Castle Semple, a piece of building is made to project diagonally outwards from the corners where the walls meet at right-angles. This projection is 16 or 17 feet in length. It serves to strengthen the fabric, and, at the same time, breaks the force of the winds which sweep around walled gardens.

Walls inclined to the horizon have been recommended by Desaguliers and others; but, independently of the theo-

retical objections which might be urged against them, and which, in actual practice, would probably counterbalance their supposed advantages, they must be extremely inconvenient from their bulk, or the space which they occupy; and hence they have never come into general use.

Bricks afford the best and the most kindly material for garden-walls. Being bad conductors of caloric, they accumulate heat; they do not retain moisture, and, by their numerous interstices, they furnish every facility for nailing in the twigs of the fruit-trees. Where freestone (that is, sandstone capable of being easily dressed) is abundant, the exterior wall is often formed of coursed masonry, and the interior is faced with bricks. The foundation should, if possible, be formed of stone. Whinstone (that is, either the greenstone or the basalt of mineralogists) forms an excellent material for fruit-walls. It is susceptible of a neat hammer-dressing; it does not readily imbibe moisture, and therefore is not much cooled by evaporation; and being of a very dark colour, it absorbs more solar heat during sunshine than a lighter surface, while at night the radiation from both is nearly the same. Part of the principal fruit-wall of the Experimental Garden at Edinburgh is built of greenstone; and the plants trained against it have evinced, by their growth, that they enjoy a superior temperature.

For the preservation of the walls, a coping is necessary; and it seems a matter of indifference whether it be formed of stones with a rounded surface, or of flat pavement, or of tiles. Probably it should not project more than an inch, though some contend for a larger measure, on the ground of its preventing to some extent the radiation of heat from the tree towards the sky in clear nights, and affording shelter from the perpendicular deposition of dew. Temporary copings of wood are often adopted, and are found to answer every good purpose. They are put on in spring, to protect the tender blossom and embryo fruit from the hoarfrosts, and when danger is past are removed, to give free access to the genial showers and sunshine of summer and autumn.

Hot Walls.—A considerable proportion of the walls of every good garden, especially in the north, should be constructed with flues, to supply the means of applying artificial heat. The additional expense is trifling; and in colder situations, the aid of this species of wall is nearly indispensable for the regular ripening of peaches, grapes, and figs. The application of fire-heat for a few weeks in spring will secure the setting of the fruit, and the same operation continued for a short time in autumn will suffice to ripen it, and also to prepare the young wood for the next year. The flues may be about twenty inches deep, and should make as many horizontal turns as the height of the wall will allow. One furnace will be enough for a surface fifty feet in length. When the boundary walls do not furnish room sufficient for the production of the finer fruits, one or perhaps two middle walls are built across the garden from east to west, of the same height as the side walls, to which they nearly approach. They are generally flued, and are sometimes covered, on their southern aspect, with glazed frames, either fixed or moveable. These cross walls add greatly to the capabilities of a fruit-garden, and are useful in affording additional shelter to the small fruits and crops of vegetables.

Espalier-Rails.—Subsidiary to walls as a means of training fruit-trees, espalier rails were formerly much employed, and they still prevail in many parts of the country. In their simplest form, they are merely a row of slender stakes of ash or Spanish chestnut, driven into the ground, and connected by a slight rod or fillet at top. In some gardens, the perpendicular rods are fastened into two horizontal rails, supported by strong posts, which are battened into stones. Cast-iron rails have also been proposed. The frame-work is sometimes inclined to the horizon, and sometimes flat like a table, which last, when there is room, is

Fruit and
Kitchen
Garden.

Fruit and
Kitchen
Garden.

perhaps the best arrangement. Espalier rails, especially the more elaborate sorts, are expensive and formal, and therefore in many instances have given place to dwarf standard trees, which are equally productive, and far more elegant in their appearance.

Soils.—It is of great importance that the ground selected for a garden should be naturally of a good quality. A hazel-coloured loam, of a light or sandy texture, is well adapted for most crops, whether of fruits or culinary vegetables. As it is more easy to render a light soil sufficiently retentive, than to make a tenacious clay sufficiently porous, a light soil is preferable to one which is excessively stiff and heavy. It is advantageous to possess a variety of soils; and if the garden be on a slope, it will often be practicable to render the upper part light and dry, while the lower remains of a heavier and damper nature. The soil should be good to the depth of two feet, and any necessary additional deepening by manures or otherwise, should not be neglected. The nature of the subsoil demands particular attention. If it be strongly impregnated with metallic substances, or composed of cold till, it will prove pernicious to the roots of fruit-trees, and will scarcely admit of a remedy. A decomposing rock, or a bed of sand, is preferable. Perhaps the best of all is a dry bed of clay, overlying sandstone, which crops out within the enclosure. If the inferior strata be retentive, and if water lodge in any part of the garden, draining should be carefully executed, so as to carry off the superfluous moisture.

Preparatory to the distribution of the several parts of a garden, it is proper that the ground be trenched to the depth of two feet at least; but the deeper the better. In this operation all stones larger than a man's fist are taken out, and all roots of trees, and of perennial weeds, are carefully extracted and cleared away. When the soil is not tolerably good to the depth of two feet, it will often be proper to remove a portion of the subsoil; and its place should be made up by a proportional quantity of turf or fresh loam from the fields. If the subsoil be gravel, and the upper layer sandy, the additional earth should be clayey loam, or the scourings of ditches; but if the original body of soil be of a compact texture, the materials introduced should be mixed with sand, marl, and other light opening substances. When the whole ground has been thus treated, a moderate liming will, in general, be useful. After this, supposing the work to have occupied most of the summer, the whole may be laid up in ridges, to expose as great a surface as possible to the action of the winter's frost. The draining, trenching, and other operations here recommended, will unavoidably be attended with considerable expense, and this expense will not immediately be followed by any perceptible beneficial result. The lapse of a few years, however, will develop the vast advantages of such a mode of procedure, which, if it have been neglected at first, cannot be practised at a subsequent period but with indifferent success, and not without a great increase of care and labour.

Manures.—In enumerating the general appendages of gardens, it may be proper to say something of manures, but we do not consider it necessary to enter into minute details on this subject. Where there are extensive melon grounds, an abundance of stable and other litter is required; and this substance, in its partially decomposed state, as afforded by exhausted hotbeds, supplies a manure well adapted to aid the processes of vegetation. Decayed leaves, which are plentiful where there are extensive pleasure-grounds, also form an excellent manure for many purposes. Some practical men prefer composts to simple dung, or such substances as have undergone fermentation. For fruit-trees turf from rich pastures, mixed with vegetable earth, is perhaps the best stimulant which can be applied. It is questionable whether any sort of trees are permanently benefited by the application of crude manures to their roots;

VOL. XI.

and it is certain that many have been irremediably injured by this practice. But whatever caution may be necessary in their use, the prudent horticulturist will find it expedient to pay particular attention to the collection of manures. He cannot go on long without them; for ground which is exhausted by continual cropping, requires to be continually repaired.

Internal Arrangement of Gardens.—A considerable portion of the north wall, or of the cross-wall, is covered in front with glazed structures, called hothouses, or forcing houses. To these the houses for ornamental plants are sometimes attached; but the last are more appropriately situated in the flower garden, when that forms a separate department. It is well, however, that every other thing connected with the forcing, whether of fruits or flowers, should be concentrated in one place. The melonry and other smaller pine-pits, should occupy some well-sheltered spot in the slips, or on one side of the garden, and, if possible, in the neighbourhood of the stable-yard. Adjoining to this may be found a suitable site for the compost ground, in which various kinds of soils may be kept in store, and composts may be prepared.

Extensive gardens, in exposed situations, are often divided into compartments by hedges, so disposed as to break the force of winds. Where these are required to be lofty yet narrow, holly, yew, or beech is preferred; but if space be no object, common laurel-bay is one of the most beautiful plants that can be employed for this purpose. Smaller hedges may be formed of evergreen privet, or of tree-box. These subordinate divisions, though often neglected, are worthy of attention; for, in addition to shelter, they furnish shade, which, at certain seasons, is peculiarly valuable.

The laying out of the area of the garden in walks, borders, and compartments, may be regulated very much by the shape of the ground, and the taste of the owner. In general, a gravel walk six or eight feet broad, is led quite around the garden, both within and without the walls. A walk of similar dimensions is often constructed in the centre of the garden in the direction of the glazed houses, and this is sometimes crossed by another at right-angles. At times these walks are led diagonally from the corners. The space between the wall and the walk that skirts it, is called the wall-border, and is commonly from fifteen to twenty feet broad. On the interior of the walk there is usually another border five or six feet broad, which is generally occupied by fruit-trees trained to espalier rails, or by dwarf standard trees. The middle part of the garden is divided into rectangular compartments for the raising of the various culinary crops. These compartments may be divided by rows of moderate-sized fruit-trees, or of gooseberry and currant bushes. It is advantageous to have several small beds, in which to cultivate the less bulky articles, such as basil, sage, tarragon, &c. which, in large spaces, are apt to be overlooked or neglected.

Wall-Borders.—The preparation of borders for fruit-trees is a matter of the utmost importance, and no pains should be spared in this essential operation. Where borders are not in good condition, the care and toil of the most experienced gardener will avail but little to the production of fruit. The first object is effectual draining. The next, if the subsoil be indifferent, is the formation of a bottom impervious to the roots of trees. This is sometimes done with stone-shivers and lime-rubbish, or with coal-ashes and clay, compacted by treading with the feet, and beating with the back of a spade. Loudon recommends successive layers an inch thick of clean gravel, pulverized earth, and then gravel, well watered and firmly compressed by means of a heavy roller. Good soil to the depth of two feet and a half, or three feet, is placed over this impervious bottom. Three-fourths rich loam, and one-fourth light sandy earth, form a mixture congenial to the generality of fruit-trees.

4 L

Fruit and
Kitchen
Garden.

Fruit and
Kitchen
Garden.

In selecting the soil, regard may be had to the particular trees which are to cover each portion of the wall. Thus a heavy soil may be allotted to pears and plums; loam of a medium character, inclining to be strong, to peaches; and a lighter earth for cherries and figs. Above all, care should be taken to render the borders sufficiently rich and substantial. Whilst every skilful horticulturist can in various ways reduce the luxuriance of his trees, nothing can compensate for extreme poverty in the soil. The same principle will dictate moderation in cropping wall borders with culinary vegetables; a practice in which gardeners are apt to exceed, from a desire to furnish very early crops of pease, turnips, cabbage, or potatoes.

Orchards.—In most large gardens dwarf standard trees may be planted, sufficient to afford a supply of fruit for an ordinary family. Where this is not the case, it is desirable that there should be a separate orchard. A situation similar to that of a garden, and the same preparatory operations, are necessary: but a simple hedge will, in most situations, suffice for a fence. The trees may here be on free stocks and high standards, and the taller growing pears and apples are best suited for a large orchard. Thorseby in his Diary, under date of March 1702, mentions, as a novelty, an orchard "kept in the new order of dwarf trees," evidently intimating that dwarf standards were introduced from Holland by the Prince of Orange at the time of the Revolution. When an additional supply of culinary vegetables is required, they may be cultivated in the orchard; and then the trees should be planted in rows, with considerable intervals between the rows, otherwise the close quincunx order is preferable. In any circumstances, the trees should not be choked up with currant and gooseberry bushes, as is common in market gardens. On the margin of the orchard may be planted Walnuts, Chestnuts, Filberds, and any other fruit-trees less commonly cultivated, or the fruit of which is not much in demand. The whole should be effectually screened from the prevailing winds, by rows of forest trees, at a sufficient distance, however, to prevent shading, or the robbing of the soil.

FRUIT GARDEN.

We shall first direct our attention to the culture of hardy fruits, or of such as, in our climate, do not, to an extensive degree, require the assistance of artificial heat. But before proceeding to a minute detail of the management of the different varieties, it may be proper to attend to some of the operations which are common to all.

Preliminary Operations.

These may be classed under the heads Propagation, Planting, Training, and the Protection of Blossom.

Propagation by Seed.—Although fruit-trees are furnished with all the natural means of reproduction, it is not in general expedient to attempt to propagate them by the sowing of seed. This method is found to be equally tedious and precarious, requiring the labour of a good many years, and very seldom producing an exact copy of the fruits from which the seeds are taken. All our present admired fruits are seminal varieties obtained from the wild inhabitants of the forests; they have been trained into an artificial condition; and when sown, seem to have a tendency to resume their original constitution. In the peach-orchards of America, for instance, which are planted with the kernels of choice sorts, there are seldom more than a few trees affording fruit fit for the table: the produce of the majority is so worthless, that it is employed for feeding the hogs. Notwithstanding this embarrassing circumstance, there are some considerations which render this mode of propagation

at once interesting and important to horticulturists. It is the only way by which we can procure new kinds to supply the place of those which are falling into decay; and it is a great means of adapting the tender sorts to the rigour of our climate. It is well known that some of the favourite cider apples of the seventeenth century have become extinct, and others are fast verging into decrepitude; and hence the conclusion has been drawn, that all our present fruits, as they are artificial in their constitution, are also limited in their duration. Each variety springing from an individual at first, however extended by grafting or budding, partakes of the qualities of the individual: and where the original is old, there is inherent in the derivatives the tendency to decay incident to old age. It is assumed that all the individual trees of any given variety, such as the golden pippin, or the grey leディングton, are in a lax sense equivalent to *one individual*. By careful management, the health and life of this composite individual may be prolonged; and grafts inserted into vigorous stocks, and nursed in favourable situations, may long survive their parent tree; still there is a sure progress towards extinction, and the only renewal of the individual, the only true reproduction, is by sowing seed. It is admitted by those who have paid attention to the subject, that this curious principle of vegetable economy holds true, at least so far as regards fruit-trees.

Mr Knight, to whom this ingenious theory is due, conceived the idea of supplying the lack of old varieties by semination. It further occurred to him, that advantage might be taken of that tendency which plants exhibit on repeated sowings, to adapt themselves to the climates in which they are raised, so that trees of warmer countries may thus become habituated to colder regions. He therefore devoted much of his attention to the production of improved and robust varieties; and his zeal and labours have been rewarded by the Acton Scott Peach, the Ingestrie and Down-ton Apples, and many others, in almost every sort of hardy fruit. Mr Knight entertained the opinion, deduced, we may presume, from experiment, that more is to be expected from hybrid varieties, than from the mere reproduction of old kinds; he therefore had recourse to the nice operation of dusting the pollen of one kind on the pistil of another. He opened the unexpanded blossom of the variety destined to be the female parent of the expected progeny, and, with a pair of small-pointed scissors, cut away all the stamens, while the anthers were yet unripe, taking care to leave the style and the stigma uninjured. When the female blossom, thus prepared, naturally expanded, the full blown blossoms of the other variety destined to be the male parent were applied. Mr Knight has often remarked in the progeny a strong prevalence of the constitution and habits of the female parent: in this country, therefore, in experimenting on pears, the pollen of the more delicate French kinds, such as crasanne and chaumontelle, should be dusted upon the flowers (always deprived of stamens) of the muir-fowl egg, the grey achan, the green yair, or others, that are hardy, or of British origin.

As this is a subject of interest, we may state some of the precautions adopted by Mr Knight and his followers, in conducting their experiments. It is, in the first place, a rule to employ seeds of the finest kinds of fruit, and to take them from the largest, ripest, and best-flavoured specimens of that fruit. When Mr Knight wished to procure some of the old apples in a healthy and renovated state, he prepared stocks of such good sorts as could be propagated from cuttings, he planted them against a south wall in rich soil, and then grafted them with the kind required. In the following winter the young trees were taken up, their roots retrenched, and then replanted in the same place, by which mode of treatment they were thrown into bearing when only two years old. Not more than a couple of apples were allowed to remain on each tree, and these in conse-

Fruit
Garden.

Fruit
Garden.

quence attained a larger size and more perfect maturity. The seeds were then sown, in the hope of procuring an equally excellent and more vigorous offspring. In the case of cross-impregnation, every seed, though taken from the same fruit, produces a different variety, and these varieties, as might be anticipated, prove to be of very various merit. In general those seeds are to be preferred which are plump and round. An estimate of the value of the seedlings may be formed, even during the first summer of their growth, from the resemblance they bear to those of highly cultivated and approved trees. The leaves of the promising seedlings improve in character, becoming thicker, rounder, and more downy every season. Those whose buds in the annual wood are full and prominent, generally prove more productive than those whose buds are small and shrunk into the bark. Early flowering and hardy blossoms are desirable characters. It has been observed, that even after a seedling tree has commenced bearing, its fruit has a tendency to improve as the tree itself acquires vigour, so that, if, in the first season, there is any considerable promise, a great improvement may be expected in succeeding years.

The slowness with which seedlings reach the bearing state, has been the subject of complaint among horticulturists, and indeed is the principal reason why this mode of propagation has not been more frequently practised. According to Mr Knight, the pear requires from twelve to eighteen years to reach the age of puberty; the apple from five to twelve or thirteen years; the plum and cherry four or five; the vine three or four; the raspberry two years. The peach, he found to bear in two, three, or four years. This period, however, must depend on the soil, situation, and mode of culture. In the warm and highly manured garden of M. Van Mons at Brussels, (called *Pépinière de la Fidélité*), seedling pear-trees produced fruit in considerable quantities in the sixth and seventh summers. The great means of accelerating the epoch of bearing, seems to be, to make the trees grow vigorously when young. Crude manures are indeed to be avoided; but vegetable earth, and, above all, a liberal supply of rotted turf, are wholesome and excellent stimulants. The seed-bed, and the ground on which the seedlings are transplanted, should be extremely well worked and comminuted with the spade; and should not be too much exposed to the parching rays of the sun, and the action of the wind. Great care ought to be taken to prevent the young plants from becoming stunted. In pruning, the small twigs in the interior should be removed, so as to relieve the tree from the bushy appearance which it frequently assumes. It has been recommended to transfer cions and buds of promising individuals into other trees in a bearing state. This is peculiarly advantageous with respect to the peach and other stone fruits, as it both hastens the period of puberty, and economises the space which must be occupied on the wall.

Propagation by Cuttings.—Gooseberries, currants, figs, vines, and some others, are increased by means of cuttings. An annual shoot is taken off, along with a thin slice, or *heel*, as it is called, of the former year's wood, which is found to facilitate the production of roots. The cuttings are placed firmly in the soil, at various depths, according to their length, the buds or eyes which would thus come beneath the surface having been previously removed. Vines are sometimes propagated from small pieces of shoots having a single bud: when they have to be transmitted to a distance, an inch in length may suffice. Most of the codlin apples may be increased by cuttings; and even large branches of those which produce *burs*, may be planted at once, with success. In all deciduous trees, the operation is most advantageously performed in winter.

Propagation by Layers.—This is not much resorted to in the fruit garden. It is occasionally employed as the means of dwarfing trees. "Laying," says Mr Lindley, "is

nothing but striking from cuttings which are still allowed to maintain their connexion with the mother plant by means of a portion at least of their stem." The operation is performed by bending down a branch to the earth, and pinning it there with pegs. A few inches from the extremity a notch or slit is cut upwards, generally from the insertion of a bud. Sometimes the shoot is pierced with a number of holes; a wire is bound round it; or even a ring of bark is removed. The object of these expedients is to retard the descending sap, and thus to promote the formation of radicles, or young roots. This is also aided by bending the branch upward from the point at which the roots are wanted; and the whole branch, except a few buds at the extremity, is covered with soil. The seasons best fitted for these operations, are early in spring and about midsummer, that is, before the sap begins to flow, and after it has completely ascended. One whole summer, sometimes two summers, must elapse before the layers be fully rooted.

Propagation by Grafting.—When a shoot or young branch of one tree is inserted into the stem or branch of another, and, by the influence of vegetation, is made to coalesce with it, the process is termed grafting. In this manner apple and pear trees, sometimes plum and cherry trees, are propagated. Our attention must be directed to the *stocks* into which the shoots or cions, as they are called, are inserted; to the *cions* themselves, and to the *mechanical operations* employed in grafting.

The *stock* should be of the same *genus*, or, at least, of close affinity in natural family, to which the graft belongs. The following are the principal kinds of stocks, including, by anticipation, such as are used in budding. For *apples*, seedlings of the crab apple, layers of the doucin or paradise, and of the codlins, with cuttings of the bur-knot varieties. For *pears*, seedlings of the common, and wilding pear; with seedlings or layers of quince. For *plums*, seedlings of any of the common sorts, particularly the muscle, the Brussels, and the Brompton; also the Bullace plum. For *cherries*, seedlings of the small black cherry or gean, *Prunus Avium*; and, for dwarfing, *P. Mahaleb*. For *apricots*, seedlings of the wilding apricot, with the muscle and Brussels plums. For *peaches* and *nectarines*, seedlings of the muscle, white pear-plum, and Damas noir plum, the almond, and the wilding peach.

Stocks are commonly divided into two classes, viz. *free-stocks* and *dwarfing stocks*. The former consist of seedling plants which naturally attain to the same size as the trees from which the cions are taken. The latter are plants of diminutive growth, either varieties of the same species, or species of the same genus as the cion, which have a tendency to lessen the expansion of the engrafted tree. The Paradise or Doucin is the dwarfing stock for apples, the Quince for pears, the Bullace for plums, and *Prunus Mahaleb* for cherries. The nature of the soil, in which the grafted trees are destined to grow, should also have weight in determining the choice of stocks. When the garden is naturally moist, it is proper to graft pears on the quince, because this plant agrees with a moist soil, and at the same time serves to check the luxuriance thereby produced. In France, peaches are commonly budded on almond stocks, to adapt them to the dry soils of that country. The seeds from which stocks are to be raised, are generally sown in beds in March; but the germination of some kinds is promoted by placing the seed, for a time, in moist sand in a greenhouse. Next season the seedlings are transplanted into nursery rows, in which they are allowed to reach the size necessary for the various forms of fruit-trees hereafter to be mentioned.

The *cion* is always a portion of the wood of the preceding year. As the diseases incident to fruit-trees are transmitted by this mode of propagation, it is desirable that the parents should be as healthy as possible. In the shy-bear-

Fruit
Garden.

Fruit
Garden.

ing kinds, it has been found beneficial to select shoots from the fruitful branches. The cions should be taken off some weeks before they are wanted, and half-buried in the earth, as it is conducive to success that the stock should, in forwardness of vegetation, be somewhat in advance of the graft. During winter, grafts may be brought from America, or from the Continent of Europe, if carefully wrapped up in hypnum-moss. If they have been six weeks or two months separated from the parent plant, they should be grafted low on the stock, and the earth should be ridged up around them, leaving only one bud of the cion above ground. Out of forty cions of new Flemish pears, procured by the Caledonian Horticultural Society from Brussels and Louvain, and treated in this way, only one failed.

Success in *grafting* depends almost entirely on accurately applying the inner bark of the cion to the inner bark of the stock, so that the sap may pass freely from the one to the other. They are therefore fitted together and held fast by a slight bandage of matting. To lessen evaporation, a portion of ductile clay is moulded around the place of junction, and is retained until it appears, from the development of leaves, that the operation has succeeded. The best season for grafting is the month of March; but it may be commenced as soon as the sap in the stock is fairly in motion, and may be continued during the first part of April.

The most usual mode of grafting is called *whip-grafting*, or *tongue-grafting*, represented in Plate CCXCIII., Fig. 8, *a, a'*. The top of the stock and the base of the cion are cut off obliquely at corresponding angles, as nearly as can be guessed by the eye; the tip of the stock is then cut off horizontally; next a slit is made downwards in the centre of the sloping face of the stock, and a corresponding slit upwards in the corresponding face of the cion. The tongue or upper part of this sloping base is then inserted into the cleft of the cion, and so adjusted that the inner bark may unite neatly and exactly on one side. The junction is then tied up and covered with clay. Several other methods may be mentioned, such as *cleft-grafting*, Plate CCXCIII., Fig. 8, *b, b'*, in which the cion is sloped at the base, and inserted like a wedge into a cleft in the stock. *Side-grafting*, Plate CCXCIII., Fig. 8, *d, d'*, which resembles whip-grafting, but is performed on the side of the stock without heading it down. *Crown-grafting*, Plate CCXCIII., Fig. 8, *c, c'*, in which the cion is inserted between the bark and the wood. *Grafting by approach*, or *inarching*, also resembling whip-grafting, but the cion remains attached to the parent plant. Plate CCXCIII., Fig. 8, *e, e'*.

It is evident that the method of performing the operation may be diversified to a great extent. The late M. Thouin of Paris described, in the *Annales du Museum*, nearly fifty *greffes*, but little practical utility results from such nice distinctions. It is of greater importance that the horticulturist should be expert in the manipulation of the more common forms, such as those above enumerated. An extensive fruit-garden requires a frequent repetition of the operation, in order to secure proper kinds, and productive branches. At Dalkeith Park, Mr Macdonald, the excellent gardener officiating there, annually inserts on his established trees numerous grafts, and by this means is enabled to overcome the disadvantages of a somewhat unfavourable situation, and to obtain abundant crops of large and beautiful fruit.

Propagation by Budding.—Most kinds of fruit-trees may be propagated by budding; and there are some, such as peaches and apricots, which can scarcely be multiplied in any other manner. It consists in removing a bud with a portion of the bark from one tree, and inserting it in a slit of the bark of another tree. The season for performing this operation is in July or August, when the buds destined for the following year are completely formed in the

axils of the leaves, and when the portion of bark parts freely from the wood beneath. The buds to be preferred are those on the middle of a young shoot. There are many forms of budding, but that which is simplest, and is generally practised in this country, called *Shield-budding*, need alone be described. The operator should be provided with a budding-knife, in which the cutting edge of the blade is rounded off at the point, and which has a thin ivory or bone handle, like a paper-folder, for raising the bark of the stock. A horizontal or transverse incision is made in the bark quite down to the wood, and from this incision a perpendicular slit is drawn downwards, to the extent of perhaps an inch. The slit has now a resemblance to the letter T (see Plate CCXCIII., Fig. 8, *f, f', f''*); a bud is then cut from the tree wished to be propagated, having a portion of the wood attached to it, so that the whole may be an inch and a half long. The bit of wood is then gently withdrawn, care being taken that the bud adhere wholly to the bark or shield, as it is called. The bark on each side of the perpendicular slit being cautiously opened with the handle of the knife, the bud and shield are inserted. The upper tip of the shield is cut off horizontally, and brought neatly to fit the bark of the stock at the transverse incision. Slight ties of moist bass-matting are then applied. In about a month or six weeks the ligatures may be taken away, when, if the operation have been successful, the bud will be fresh and full, and the shield firmly united to the wood. Next spring a strong shoot is thrown out, and to this the stock is headed down in the course of the summer.

Planting.—After propagation, the next care is to transfer the young trees to those places, whether in the open air or against the wall, where they are to remain. It is of some importance that these situations should be carefully selected; for although all fruit-trees admit of repeated transplantation at a subsequent period, they seldom fail to exhibit injurious effects from it. Planting may be performed at any time in the beginning of winter, and in the early spring months; but it is considered that the most advantageous seasons are immediately after the fall of the leaf in autumn, and before the ascent of the sap in spring. The trees should be carefully lifted from the nursery lines, avoiding the mutilation or bruising of the roots; and, to prevent the desiccation of the fibres, they should be planted as soon as possible after being lifted. When they have to be carried to a distance, the roots should be enveloped in moist hypnum-moss. In the ground, which is presumed to have been previously trenched or otherwise prepared, pits or holes are formed, and the soil is finely pulverized; and in these the trees are placed, their roots being spread out and intermingled with the earth. Shallow planting is strongly recommended; two or three inches of soil being in general a sufficient covering. On filling up the hole, a surface of at least an equal size is *mulched*, that is, covered with dung or litter, so as to restrain evaporation, and preserve moisture. In the case of wall-trees, a space of five or six inches is usually left between the stem at the insertion of the roots and the wall, to allow for the effects of growth. To young standard trees stakes are added, to prevent their roots being ruptured by wind-waving. During the dry weather of the first summer, the trees should be watered from time to time as occasion requires.

The selection and distribution of the different kinds of fruit-trees is an important and interesting point in the formation of a garden. Regard must necessarily be had to local situation and climate, as the selection ought manifestly to be different for a garden in the south-west of England, and for one in Yorkshire or Scotland; for one near the level of the sea, and for another elevated several hundred feet. The best walls, having a south or south-east aspect, are dedicated to the grape-vine, the fig-tree, the peach, and apricot. The finer varieties of French and Flemish pears

Fruit
Garden.

Fruit
Garden.

require and deserve a good aspect, as also the early sorts of cherries. The later cherries, and the generality of plums, succeed very well either on an east or west aspect. In Scotland, the mulberry requires the protection of a wall, and several of the finer apples do not arrive at perfection without it.

The wall-trees which are intended to be permanent are called *dwarfs*, from their being grafted near the ground. Between each of these, trees with tall stems, called *riders* in Scotland, are planted as temporary occupants of the upper part of the wall. The riders should always be five or six years trained in the nursery, in order that when planted out they may come into bearing as speedily as possible. The distances at which the permanent trees are planted is to be regulated by the known mode of growth of the different sorts, and by the height of the wall. When the walls are about twelve feet high, the following average distances have been recommended:—For vines, 10 or 12 feet; peach and nectarine trees, from 15 to 20 feet; fig-trees, 20 feet at least; apricots, from 15 to 24 feet; plums and cherries, from 15 to 20 feet; pear-trees, 20 feet if on quince stocks, and 30 feet on free stocks; apple-trees, 12 feet if on paradise stocks, and 15 to 25 feet on free stocks. Where the walls are only seven or eight feet high, the distance should be increased by nearly one-fourth, as in this case the want of height must be compensated by greater breadth.

Apples and pears make the best espalier-rail trees, especially in Scotland. These should be of the more robust sorts, and should be planted at the distance of 15 or 20 feet. Cherries and plums are sometimes introduced into the espalier-rail row, but these succeed in those situations only where they would do equally well or better as standards.

In many excellent gardens, dwarf standards are preferred to espalier-rail trees. They are placed along the inner borders at 8 or 10 feet apart. When proper attention is paid to such trees, the effect is very pleasing, each being in itself a handsome object, and generally clothed with fine fruit. Where the situation is warm, and the climate favourable, a few of such of the finer pears as have hardy blossoms should be planted out in this form. Though they may fail to ripen in some seasons, they will often add greatly to the resources of the fruit-room, their produce being frequently superior in flavour to the fruit grown on walls.

Training.—Two functions belong to training,—that, namely, which modifies the form of the tree, and that which regulates the bearing wood, and consequently the supply of blossom. The latter, more accurately termed *pruning*, being of a varied character, will more properly fall to be considered when treating of the several fruits; at present we shall make a few remarks on the former. The essential properties of training are, that it should be simple, not requiring frequent amputation; that it should be appropriate to the growth of the tree; and that it should be such as to facilitate the production of fruit. The knife is the great instrument in training, and whoever can wield it skilfully, will have a perfect command over his trees: at the same time, it may be laid down as a maxim, that it should be used with some degree of reserve, as nothing is more prejudicial to the health and fruitfulness of all sorts of trees, than severe and injudicious cutting.

Training of Standards.—Orchard-trees are generally worked in the nurseries with stems five or six feet high. All that is necessary, in pruning trees of this sort, is merely to cut out the branches which cross or press upon one another. Bushy heads should be thinned out, and those which are too lax cut back. Three or four leading branches may be selected, to pass ere long into boughs, and form a handsome skeleton for the tree; but it is useless to be

final in this matter, as these branches will soon grow beyond the power of the pruner, and of any artificial system which he may adopt. Dwarf standards being more accessible, are more under the dominion of training. When worked on paradise stocks, they may be kept not much superior in size to gooseberry bushes, and in a state of abundant fruitfulness. The more fanciful Dutch modes of training apple-trees, in the cup-and-ball fashion, and after many other curious devices, have never been relished in Britain. In this country, they are generally allowed to grow *en buisson*, that is as bushes. For pears, the French forms, *en pyramide*, fig. 1, and *en quenouille*, fig. 2, are justly gaining ground.

Fruit
Garden.

Fig. 1.



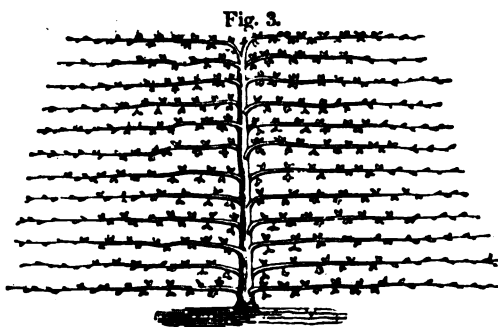
Fig. 2.



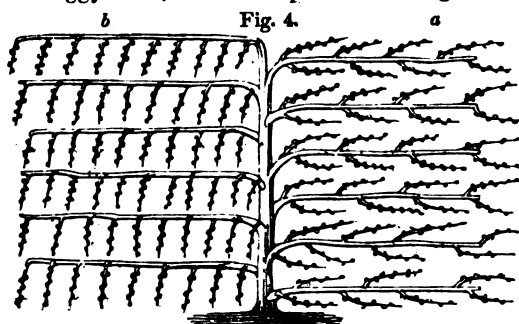
Training of Wall-Trees.—A fruit-tree planted against a wall is evidently in a constrained and artificial situation, from which it makes continual efforts to escape. Much attention is necessary to repress this tendency, which, were it permitted to act, would disfigure the tree, and neutralize the advantages of a wall, without imparting in their place the freedom of a standard in the open air. To be successful, the operator should be acquainted with the theory of vegetation, should study the mode of growth in different trees, and, above all, remember the purpose of all training, viz. the production of bearing wood.

One great difficulty is to preserve equilibrium in the growth of the several parts of the same tree: for the attainment of this object, excellent hints are to be found in the *Pomone Française*: we shall mention only two or three. A shoot will grow more vigorously whilst waving in the air, than when nailed close to the wall; a weak shoot should therefore be left free, whilst its stronger antagonist should be restrained. A shoot diverging slightly from the perpendicular, will, other things being equal, obtain a more copious supply of sap than one that is laid out horizontally, or is deflected downwards. A luxuriant shoot may be retarded for some time, by having its tender extremity pinched off, and thus allow a weaker brother to overtake it. By these and other expedients, which will suggest themselves to an attentive horticulturist, and by the prudent use of the knife, it will be easy to execute the following forms, which, on account of their simplicity and general excellence, we select out of many to be found detailed in works on gardening.

The *horizontal* form (fig. 3.) has long been a favourite in this country, having been strongly recommended in the excellent work of Mr Hitt. There is one principal ascending stem, from which the branches depart at right-angles, at intervals of ten inches or a foot. In trees of ordinary vigour, the vertical shoot is cut back every winter to within fourteen inches of the highest pair of branches: a number of shoots are produced in the beginning of each sum-

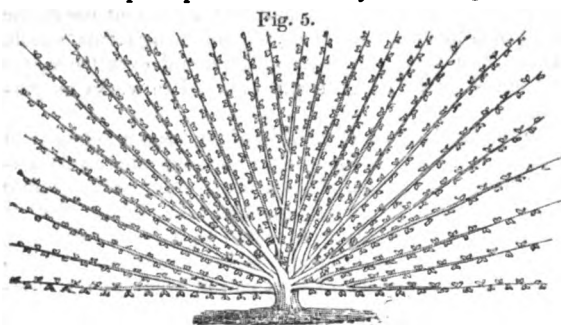
Fruit
Garden.

mer, out of which three are selected: one is trained in the original direction of the stem, and one on each side of it, parallel to the base of the wall. By pinching off the point of the leading shoot about midsummer, another pair may be obtained in autumn. In luxuriant trees, the vertical shoot may be left two feet in length, by which means, and by summer pruning, we have known four pairs of branches added in one season. The great object, at first, ought to be to draw the stem upwards: when it has reached the top of the wall, it is made to divaricate into two, and the tree, thus completed as to its height, is henceforth suffered to increase in breadth only. Horizontal training is best adapted to those trees which produce strong shoots, as the Ribston Pippin apple, or the Gansel's Bergamot pear. For the more twiggy kinds, the form represented in Fig. 4. is more



suitable. In this the horizontal branches are eighteen or twenty inches distant, and the small shoots are trained in between them, either on both sides, as below letter *a* in the figure, or on the under side and downwards, as below *b*. This last is an excellent method of reclaiming neglected trees of this description. Every alternate branch being taken away, and the spurs cut off, the young shoots are trained in, and soon produce excellent fruit. It is rather singular that Thouin, in his account of the *Ecole d'Agriculture pratique du Muséum*, classes the horizontal form among *les tailles hétéroclites ou peu perfectionnées*, and says, that, in consequence of its invariably producing a *tête de saule*, that is, a hedge of young shoots at the top, it has been long since abandoned. From this remark, we must draw the conclusion, that in France the theory of training is in advance of the practice.

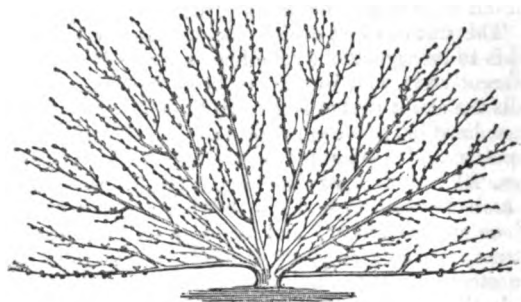
The other principal form is called *fan-training*. In this



there is no leading stem, and the branches are arranged somewhat like the spokes of a fan. Fig 5. represents this shape as it commonly occurs in gardens. It is difficult to say how, in the case of apple and pear trees, this mode, though frequently adopted, is superior or even equal to the horizontal configuration: it is evident, that when the branches reach the top of the wall, where they must be cut short, a *tête de saule* is inevitable. It would be better to adopt the modification of the fan shape used for stone fruits (fig. 6); to establish a certain number of mother branches,

Fruit
Garden.

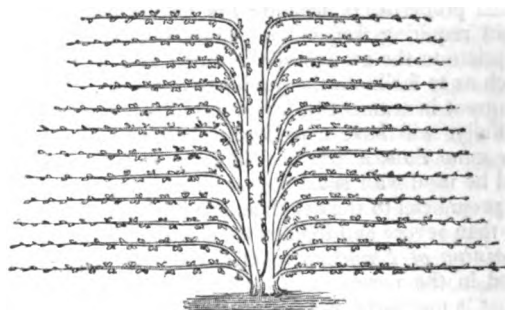
Fig. 6.



and on these to form a series of subordinate members, chiefly composed of bearing wood. The mother branches or limbs should not be numerous, but well marked, equal in strength, and regularly disposed. The side branches should be pretty abundant, short, and not so vigorous as to rival the leading members. To ensure regularity, training should commence with maiden plants; leaders of equal strength should be selected, and encouraged to grow out longitudinally as much as possible, and all crowding among the inferior shoots should be prevented. In *riders* this form passes into the stellar arrangement. The French have made considerable improvements in this mode of training, some of which are noticed, *infra*, under the article Peach.

Intermediate between horizontal and fan training, is the *half-fan*, described in the first volume of the *Caledonian Horticultural Society's Memoirs*, by Mr Smith, gardener at Hopetoun-House, and practised by him with great success. It is nearly allied to the horizontal form, but the branches form an acute angle with the stem, and are supposed thus to favour the equal distribution of the sap. In the winter pruning, three and sometimes four central branches are cut back; the shoots which arise from these are arranged in the fan order, and, as they elongate, are gradually brought into the horizontal position. The tree is finished at top as in the horizontal form. Sometimes, as in fig. 7., two

Fig. 7.



vertical stems are adopted. For vigorous trees, this figure seems to combine the advantages of both the foregoing varieties.

The choice of particular modes of training is too often determined by mere fashionable prejudice, which leads to

Fruit
Garden.

the application of the same form to all sorts of trees. Thus the French are apt to reduce every thing to the *fan* system, whilst some English horticulturists are inclined to force trees of the most rambling growth into the pillory of a *horizontal* arrangement. Such a uniformity cannot possibly be in accordance with nature. The enlightened cultivator will employ various forms, and will determine for himself which is the most appropriate, not only for every species, but even for each particular variety of fruit-tree. By attentive observation and rational experiment, more knowledge in this department may be attained in a few years, than by a whole life spent in routine practice.

As supplementary to the preceding remarks on training, we may mention some of the expedients for inducing a state of fruitfulness in trees. Of these, the most common is the cutting back of the roots to within three or four feet of the stem; an operation which is generally found efficacious, when barrenness proceeds from over-luxuriance and too copious a supply of sap. To attain the same end, recourse is sometimes had to *ringing* the branches or stem, that is, removing a narrow annular portion of the bark. The trees, it is said, are thereby not only rendered productive, but the quality of the fruit is at the same time apparently improved. The advantage is considered as depending on the obstruction given to the descent of the sap, it being thus more copiously afforded, in its elaborated state, for the supply of the buds. The ring should therefore be made in spring, and of such a width that the bark may remain separated for the season. It ought to be observed, however, that none of the stoned fruit-trees are benefited by ringing. Analogous to this practice is decortication, or the removing of the old cracked bark from the stems of apple and pear trees, a practice warmly recommended by Mr Lyon of Edinburgh, and some other cultivators, but which has never been extensively adopted. Sometimes barrenness proceeds from defect of climate and poverty of soil; in which case, a warmer situation and more generous treatment are the most effectual remedies. Fruit-trees should never, if possible, be allowed to become stunted; for in this state they produce only worthless fruit, and acquire a habit which scarcely admits of amelioration.

Protection of Blossom.—In our variable climate, and particularly in the northern and eastern parts of the island, it is very desirable that the horticulturist should be provided with the means of defending the blossom of his fruit-trees from the late frosts in spring. For this purpose, some cultivators partially cover their walls with branches of fir or beech, or the fronds of the common *braken* fern (*Pteris aquilina*), fastened firmly by several points of attachment, to prevent rubbing. Others recommend frames covered with bunting, osnaburg or similar light fabrics, set in a sloping position in front of the trees. Screens formed of reeds have been used, and nettings of worsted-yarn or of straw-ropes have been employed with good effect. Whatever contrivance serves to interrupt radiation, though it may not keep the temperature much above freezing, will be found sufficient. Standard fruit-trees must be left to their fate, and, indeed, from the lateness of their flowering, they are generally more injured by blight, and by drenching rains, which wash away the pollen of the flowers, than by the direct effects of cold.

CULTURE OF HARDY FRUITS.

We now proceed to the more special culture of the inmates of a British fruit-garden. We shall begin with the more tender, but for details regarding these, we must, to a considerable extent, refer to the forcing department, in which alone many of the finer fruits can be perfected. The

nomenclature of the numerous varieties of the principal fruits is still in an uncertain and unsatisfactory state. Mr Thompson, of the Horticultural Garden at Chiswick, has, however, with much discrimination and judgment, settled the synonyms of many of those chiefly cultivated in our gardens; and we shall therefore (when the contrary is not intimated) adopt the names employed in the second edition of the London Horticultural Society's Fruit Catalogue.

The GRAPE VINE (*Vitis vinifera*) can scarcely be said to be a hardy fruit in our climate. In every case it requires a good aspect; and north of York, a crop of *dessert* grapes cannot be expected without the aid of a hot wall. In the extreme south-west districts of England, indeed, grapes fit for the manufacture of wine, perhaps equal in quality to those in the north of France, might be produced on dwarf standards; and there is abundant historical evidence that productive vineyards once existed in that part of the country.

In the Lond. Hort. Soc. Catalogue, 182 varieties of grapes are enumerated. Some of these, however, have not as yet been well ascertained; some are pronounced indifferent, and others worthless. We shall name only a few of those most deserving the attention of the cultivator.

Miller's Burgundy. This sort is distinguished by the hoary pubescence of its leaves. It is a black grape, with short compact clusters, small round berries, and clear, high-flavoured juice. It is hardy, ripening completely on a south wall.

Black Damascus. Bunches large, with round berries and sweet juice. This valuable late variety does not set well, and the bunches are improved by the blossom being dusted with the pollen of some hardy kind.

Frankenthal. A valuable grape, resembling the black Hamburg. Bunches moderate in size, berries obovate, flavour excellent. Succeeds best in a warm vinery.

Frontignan (or Frontignac). Five varieties under this appellation, and distinguished by the names of *black*, *blue*, *grizzly*, *red*, *white*, are mentioned in horticultural catalogues. They vary in colour and form of the cluster. The berries are round, the skin thick, and the juice of a rich muscat flavour. They are all of the highest excellence.

Black Gibraltar, or Red Hamburg of Lindley. This is an excellent grape, with large clusters, and large dark-red berries, full of a sweet juice.

Black Hamburg. This is a well-known grape, of great value, and perhaps more generally cultivated for the dessert in this country than any other sort. It ought to be in every collection.

Black Lombardy (or West's St Peter's). Bunches large, berries round, skin thin, with a sweet flavour; an excellent late sort. The fruit will hang on the vines till March.

Royal Muscadine, L. Hort. Cat. or White Muscadine of Lindley. Usual Chasselas of Paris. This, though not a first-rate grape, is a favourite with many. Bunches large, berries white, round, with sweet flavour.

Muscat of Alexandria. Bunches long, berries white and oval, with a delicious muscat flavour. This most admirable variety requires a high temperature, and should properly have a small vinery for itself.

Pitmaston White Cluster. This excellent variety sprang from a seed of the small black cluster grape. The bunch is compact, the berry is round, when ripe of an amber colour, bronzed with russet on one side. It comes to perfection on the open wall in England, and is also well suited for forcing.

White Sweet Water. Bunch loose, berries round, flavour sweet. It ripens early, generally from the middle to the end of September; and in the south of England it suc-

Fruit
Garden.

Fruit
Garden.

ceeds against the open wall. The bunches should be allowed to hang until they be perfectly ripe, when the berries acquire a slight russet colour. It has long been a favourite grape.

Stillward's Sweet-Water is a recent variety, of equal merit.

Black Morillon, or *Burgundy Grape*, or *Small black cluster*, ripens in England against a south wall.

The *Black Prince* is of easy cultivation in a common vinery, and the berries are of a pleasant flavour.

The *Zante*, or *Corinth Grape*, is often called *Zante Currant*. In general it is a shy-bearer, and the berries are small; but Mr Gow, gardener at Tulliallan, having fertilized some bunches with the pollen of the *Black Hamburgh*, found that they set more freely, and that the berries were larger and better flavoured; a hint worth attending to in other cases.

Verdelho. Bunches loose, colour greenish-yellow, berries small, oval, numerous; when fully ripe, of a rich saccharine flavour. It is the principal grape cultivated in Madeira for making the celebrated Madeira wine. The plant grows vigorously; and Mr Knight has observed of it, that the same degree of shade which would render the greater number of sorts wholly unproductive, scarcely affects the fertility of this; a convenient property, which adapts it for the back wall of a glazed house. The same horticulturist mentions another economical property of the *verdelho*: it bears plentifully when planted in very small pots: a few pots of it may therefore be introduced among green-house plants in early spring; the almost leafless stems do no injury till the end of May, when some of the more hardy ornamental plants can be set abroad; and during the warm months which follow, when the green-house is otherwise empty, abundant crops of these grapes may be procured.

Esperione, or *Turner's Early Black*. The bunches are large and shouldered, not unlike those of the *Black Hamburgh*. The berries are of a fine dark colour, with a bluish farina: the pulp adheres to the skin; and though neither highly flavoured nor melting, it is very pleasant. This grape ripens on the open wall near London.

The *Syrian Grape* is remarkable for the extraordinary size and beauty of its bunches; but it is a late variety, and the berries have not much flavour. This is generally regarded as the kind produced in the valley of Eshcol, a cluster of which was brought to the camp of Israel swung on a staff between two of the spies; not probably on account of its weight, but (as Dr Clarke observes) to prevent the berries from being bruised.

In addition to the above, the editor of the *Lond. Hort. Cat.* mentions the following as excellent grapes:—*Ciotat*, or *Parsley-Leaved*; *Genuine Tokay*, or *White Morillon*; *Chasselas Musqué*; *Chasselas précoce*; *Elford*; *Lunel*; *Mignonne White Cluster*; *Black Morocco*; *Black Muscadine*; *Petersburgh*; *Raisin des Carmes*; *White Tokay*, and *Black Tripoli*.

The kinds commonly grown on the open wall in England are the *Miller Burgundy*, *Esperione*, *White Muscadine*, and *White Sweet-Water*. In the north of England, and in the south of Scotland, vines always require hot walls. At *Erskine-house*, on the *Clyde*, *Black Hamburgh* grapes are every year produced against a hot-wall, equal in size and flavour to those of the vinery or hot-house. In some gardens, an entire wall is dedicated to vines, but, in general, they occupy only the interstices between other trees. Mr Williams of *Pitmaston* trained a vine under the coping of a wall to the extent of fifty feet, and bent down the shoots at intervals to fill up the spaces between the fruit-trees, and he found that the grapes were the finer the farther they were distant from the stem. The culture of grapes on a wall does not differ materially from that practised in a moderately worked vinery; we shall therefore

defer any further observations, till we resume the subject in treating of the forcing department.

Fruit
Garden.

The *FIG-TREE* (*Ficus Carica*) is not a great favourite in this country, the fresh fruit not being much relished, and our tables being supplied with a vast abundance of dried figs imported from the Mediterranean. Every good garden ought, however, to contain a few trees, to furnish an occasional dish; and we doubt not that the fresh fruit, if it were more common, and better grown, would be more liked. The foliage of the tree is large and elegant; and the mode of fructification is curious: the pulpy part, which we call the fruit, being, in fact, a common receptacle, and the anthers and stigmata being produced inside. The nomenclature of figs is still very uncertain, and it is with some hesitation that we give the following names:—

- | | |
|-----------------------------|----------------------------------|
| 1. Black Ischia. | 6. Murrey-coloured or Brown |
| 2. Black Genoa. | Naples. |
| 3. Large Blue, or purple. | 7. Pregussata. |
| 4. Brunswick or Madonna. | 8. Lee's Perpetual. |
| 5. Brown Ischia or Miller's | 9. Early White. |
| chestnut fig. | 10. Marseilles or Figue blanche. |

Of these the *Marseilles*, the *Early White* and *Black Ischia*, and *Large Blue*, are best adapted for forcing; the others are suitable for walls. *Lee's perpetual* answers well for either mode of culture; but it is not mentioned by *Loudon* or by *Lindley*, being probably regarded by them as a sub-variety of the *Large Blue*.

Fig-trees may be propagated by cuttings put into flower-pots, and placed in a gentle hot-bed. They are, however, most speedily obtained from layers. The shoots laid down should be two or three years old; and these, when rooted, will form plants ready to bear fruit the first or second year after planting. Suckers ought never to be used.

In some places in England *fig-trees* are planted out as standards; and in *Kent* and *Sussex*, a few small *fig orchards* exist. In *Scotland* a south wall is indispensable, trained to which, in good situations, and when the trees are old enough, they bear remarkably well. The best soil for a *fig border*, is a rich friable loam, on a subsoil not retentive of moisture, or which has been effectually drained. It is advantageous to have a lofty wall, and the trees should be planted at considerable distances, perhaps not nearer than forty feet, to allow them full space to exhaust their luxuriance.

It is of the nature of the *fig-tree* to produce two sets of shoots, and two crops of fruit, in the season. The first shoots generally shew young figs in July and August, but those in our climate very seldom ripen. The late or mid-summer shoots likewise put forth fruit-buds, which, however, do not develop themselves till the following spring, and then form the only crop of figs on which we can depend in this country.

Various modes of training *fig-trees* have been proposed. Mr *Lindley* recommends the horizontal form. Mr *Knight* carries up a central stem perpendicularly to the top of the wall, and then radiates the side-branches horizontally and pendently, in close contact with the wall. Luxuriance of growth is supposed thus to be checked, and the branches thrown into a bearing habit. The finest *fig-trees* which we have seen in *Scotland*, are trained in the old fan form. The shoots are laid in, thinly, at full length, and encouraged to extend themselves as fast as possible, precaution, however, being taken to leave no part of the tree bare of young wood. Much of the pruning is performed in summer by pinching off unnecessary shoots, and the knife is seldom employed, except in removing naked branches, or in cutting back to procure a supply of young wood. Some cultivators break off the points of the spring shoots, in order to produce laterals, but this must be done at an early period, not later perhaps than mid-summer, otherwise the young

Fruit
Garden.

shoots will not ripen. The Rev. G. Swayne recommends rubbing off all the young figs which appear in autumn on shoots of the same year; observing, that for every young fig thus displaced, the rudiments of one, or perhaps two others, are formed before winter, and developed in the following year.

The winter dressing of the fig-tree takes place immediately after the fall of the leaf. The immature figs which may remain are removed, irregularities are corrected, and the shoots nailed neatly to the wall. Various modes of protecting the branches during winter have been adopted. As Argenteuil, where figs are cultivated on standards for the Paris market, the lower branches are bent downwards, and buried about six inches deep in the soil; while the upper branches are tied together, and bound round with straw and litter. Mr Swayne mentions that he wraps up the young shoots with waste paper. Mr Forsyth recommends covering wall fig-trees with the spray of laurel or yew, and then tucking in short grass or moss (*hypnum*) among the spray. Mr Smith, first at Ormiston Hall, and afterwards at Hopetoun-house, has found (*Cal. Hort. Soc. Mem.* vol. ii.) a covering of spruce-fir branches to be very effectual. The branches are so placed as to overlap each other, and to form a layer nearly equally thick on every part of the tree. The foliage of the spruce branches remains green till March, and as the light and heat increase, the dried leaves gradually fall off, and admit air and sun to the fig-branches below.

Mr Monck (*Lond. Hort. Trans.* vol. v.) states, that the same fig-tree seldom produces fruit containing both perfect stamens and pistils, and conjectures that this is the cause of the fruit being so often prematurely shed. *Caprification*, or assisting the fructifying and maturation of figs, has often been sneered at; but here we see reason in that kind of it which consisted in hanging or shaking the branches of the wild fig (*caprificus*) over the cultivated tree at the time when both were in blossom.

The PEACH (*Amygdalus Persica*) is a stone-fruit of oriental origin, said to have been brought from Persia by the Romans, about the beginning of the empire; but the precise period of its introduction into our gardens, of which it has long been the pride and ornament, is not well ascertained. There are two principal varieties: the Peach, properly so called, with a downy skin; and the Nectarine, with a smooth skin. These, following the authority of Linnæus, we consider as one species; and as their culture is precisely the same, we shall speak of them as distinct only when referring to their sub-varieties. Each of these varieties is again divided by gardeners into *freestones* or *pêches*, and *clingstones* or *pavies*, according as the stone parts freely from the pulp, or adheres to it. We shall here treat chiefly of the freestones, as being most hardy, and fittest for the open wall in Britain.

Mr George Lindley, whose arrangement is the best that has hitherto been published, enumerates 60 kinds of peaches, and 28 of nectarines. In the Horticultural Catalogue, the names of 183 peaches, and of 65 nectarines, are recorded. We doubt not but that in America, where the trees are commonly raised from kernels, and grown as standards, several thousand varieties and sub-varieties might be collected. To enumerate even the limited number existing in Britain, would far exceed our limits: we shall therefore notice only a few of those which are most distinct, and best adapted to our climate.

Peaches.

Red Nutmeg, or *Avant rouge*. This is one of the earliest peaches, ripening about the beginning of August. The fruit small; colour pale yellow toward the wall, bright vermilion

Fruit
Garden.

next the sun; pulp white, but red at the core; the juice rich and musky. The tree is an abundant bearer.

Acton Scot. This was raised by Mr Knight between the noblesse and the nutmeg peach, in 1814. The fruit is red next the sun, and white on the other side; the pulp rich, juicy, and saccharine; the tree is a good bearer, and not apt to be affected with mildew. It ripens in August.

Spring-Grove. This is another of Mr Knight's peaches, raised from the grosse mignonne crossed with the pollen of the nutmeg. It is dark red on one side, and bright yellow on the other; pulp firm, but melting, and of excellent flavour. The tree is a good bearer, but succeeds best on an apricot stock. The fruit ripens in the beginning of September.

Grosse Mignonne, *L. Hort. Cat.*, or *Neil's Early Purple*. Fruit large; skin pale yellow, and deep purple next the sun; flesh melting; juice plentiful, and of delicious flavour. This excellent peach is a good bearer, and forces well, but the fruit does not bear carriage. It ripens in the end of August and beginning of September.

Madeleine de Courson; Red Magdalene of Miller. Blossoms large; fruit rather below the middle size; colour yellowish white next the wall, beautiful red next the sun; flesh white, with very little red at the stone; juice rich and vinous. Tree a good bearer; fruit ripening about the beginning of September. "An excellent peach," says Mr Lindley, "and ought to be found in every collection."

Royal George. This is a well-known peach, much cultivated. By nurserymen it is often given out as the Red Magdalene; but it is at once distinguished from the Red Magdalene of Miller, by the blossoms being small. Against a good wall it ripens in the beginning of September, even in indifferent seasons. Fruit large, purplish red next the sun, whitish where shaded; flesh white, varied with red next the stone which is free; melting, rich, with an abundant sugary juice. It is also one of the best kinds for a peach-house, fruiting freely, and ripening well. The foliage is, however, rather subject to mildew.

Noblesse. This has long and deservedly been a favourite in our gardens. It is a very large fruit; the skin pale red when ripe, the flesh juicy and rich. The tree is a good bearer, and the fruit ripens in September.

Bellegarde; the *Galande* of the nurseries. Fruit large and globular; skin deep red, with purple streaks on the sunny side; flesh pale yellow, very melting; juice rich. An excellent peach; the tree forces well, and the fruit ripens on the open wall about the middle of September.

Late Admirable, or *La Royale*. Fruit large; skin pale green next the wall, pale red on the sunny side; flesh greenish white, red at the stone; juice abundant, and, when well ripened, of a high flavour. "One of the very best late peaches," says Mr Thompson, "and ought to be in every collection: it is very proper for the peach-house, to succeed the earlier sorts."

Nearly allied to the preceding is the *Teton de Venus*, a beautiful fruit, but requiring a warm situation. In a good season, it ripens at the end of September; is saccharine, and at same time of fine flavour.

George the Fourth. *L. Hort. Cat.* 65. American Orchardist, p. 223. This is a fine large peach, of American origin; bears forcing well, and is a semi-clingstone. It is too tender for the open wall in this country.

Among other excellent peaches may be mentioned:—*Freestones*, Barrington, Chancellor, Knight's Early, Downton Early, Malta, Morrisania Pound, Royal Charlotte, Royal George Mignonne, William's Early Purple; *Clingstones*, Catharine, Heath, and Old Newington.

Nectarines.

Fairchild's Early. A beautiful little freestone, chiefly,

Fruit
Garden.

however, cultivated for its earliness. It ripens about the middle of August.

Elruge, *L. Hort. Cat.*, 21. *Lind.* p. 287 (not of Miller). It is an excellent fruit, of a moderate size; flesh white almost to the stone, which is free. The tree forces well, and is a good bearer. Fruit ripens about the beginning of September.

Hunt's Tawny. Size moderate; skin pale orange next the wall, russet-red towards the sun; flesh deep orange, juicy and well flavoured; a freestone. A very distinct sort, worthy of cultivation for its earliness.

Early Newington. A fine large clingstone; pale green on the shaded side, bright red next the sun; juice saccharine and well flavoured. Ripens in August.

Red Roman. An excellent old clingstone, now seldom to be met with genuine, but worthy of re-introduction.

A few other first-rate nectarines may be enumerated:—*Freestones*, Brinion, Downton, Murrey (*i. e.* murrey-coloured), Pitmaston Orange, Violette Grosse, Violette Hâtive; *Clingstones*, Imperatrice, Newington Late Tawny. A very good nectarine was raised by the late Mr Henderson at Woodhall, in Scotland. It approaches the Elruge. The fruit is early, and of excellent flavour, and the tree bears plentifully. It has been named the *Woodhall nectarine*.

For information respecting the best modes of raising new varieties of peaches and nectarines, the reader may be referred to Mr Knight's papers in the first volume of the Transactions of the Horticultural Society of London. That ardent horticulturist entertains the hope, that, by repeated sowings, the peach may acquire so robust a habit as to be capable of succeeding as a standard in favourable situations in England and Ireland. But with this desirable object in view, we would rather see the number of the kinds diminished than increased; and it would be well for the country, were all the indifferent sorts banished from the nursery catalogues.

To perpetuate and multiply valuable varieties, peaches and nectarines are budded upon plum or almond stocks. For dry situations, almond stocks are preferable; and for damp or clayey loams, it is better to use plums. The peach border should be composed of a light mellow loam, such as is suitable for the vine and the fig. It should be quite free from all stagnant water, or latent dampness. It need not be of great depth, as the peach tree thrives best, and is most productive, when the roots are near the surface of the ground. In this country, nothing is a greater obstacle to success in peach culture than trenching the borders, and cropping them with vegetables. We believe that, in many instances, all that is required to remedy sickly and unfruitful trees is to bring up their roots within five or six inches of the surface.

The fruit of the peach is produced on the twiggy shoots of the preceding year. If these be too luxuriant, they produce nothing but leaves; and if too weak, they are incapable of maturing the fruit. To produce these, then, in sufficient abundance, and of requisite strength, is the great object of peach training and pruning. All twiggy trees naturally fall into the fan form; and accordingly this has generally been adopted in the culture of peaches. Some have followed the horizontal arrangement, and Mr Knight has recommended a method, the principal purpose of which seems to be to thwart the usual mode of growth of the tree. In reference to such arrangements we can only say:

Naturam expelles furor, tamen usque recurret.

We shall first notice the old English method, and then briefly the French, and other new varieties of training.

The *old an* form is very nearly that which we have already given (*supra*, p. 638,) as a specimen of fan training for twiggy trees. The young tree is often procured when it has been

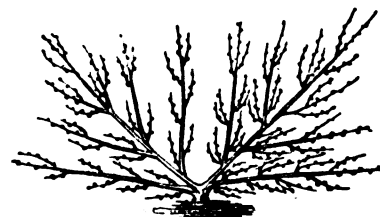
trained for two or three years in the nursery, but it is generally better to commence with a *maiden* plant, that is, in the first year after it has been budded. It is then headed down to five or six buds, and in the following summer two or four shoots, according to the vigour of the plant, are trained in; the laterals also being thinned out, and properly nailed to the wall. Suppose there are four branches, in the following winter the two central ones are shortened back to produce others, and the inferior ones are laid in nearly at full length. In the following season additional shoots are sent forth; and the process is repeated till eight or ten principal limbs or *mother branches* be obtained, forming, as it were, the frame-work of the future tree. These mother branches are occasionally raised or depressed, so as to maintain their equilibrium, and are as much encouraged to grow outwards as is consistent with the regular filling up of the tree. The laterals are carefully thinned out (by pinching off with the fingers) in summer; and the remainder are nailed in, to afford subordinate members and bearing wood. When the centre of the tree has been filled up, all the training necessary is merely to prevent the inferior members from acquiring an undue ascendancy over the mother branches. It is highly advantageous to have abundant space, and to draw the tree outwards, so that it be thin, but nowhere destitute of young shoots.

Meanwhile the pruning for fruit has been going on. This consists in shortening down the laterals which had been nailed in at the disbudding, or summer pruning. Their length will depend on their individual vigour, and the luxuriance of the tree. The buds, which are generally double, or rather two together, with a fruit bud between them, seldom occur quite close to the insertion of the shoot. Perhaps two or three pairs are left with a wood-bud at the point to afford a growing shoot, in order to act as its lungs, for it is necessary that there should be leaves above the fruit. When the fruit begins to swell, the point of this leading shoot is pinched off, that it may not drain off the sap. Any young shoot from the wood-eyes at the base of the bearing branch is carefully preserved, and in the following winter it takes the place of the branch which has borne fruit and is cut out. If there be no young shoot below, and the bearing branch be short, the shoots at the point of the latter are pruned for fruit; but this must be done cautiously; and if the bearing branch be long, it is better to cut it back for young wood. It is the neglect of this which constitutes the principal error of the English fan system as it is usually practised. Several times during summer the trees are regularly examined; the young shoots are respectively topped and thinned out; those that remain are nailed to the wall, or braced in with pieces of peeled willow, and the whole trees are occasionally washed with the force-pump.

The *Montrueil* form is described at length in the Hor-

Fruit
Garden.

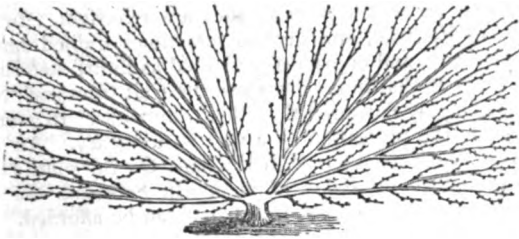
Fig. 8.



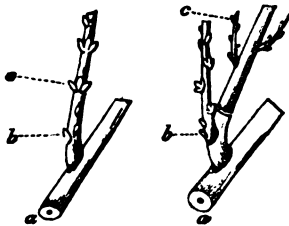
tical Tour, p. 429, or in the *Cal. Hort. Mem.* vol. iv. p. 145. The principal feature constitutes the great principle of all French training, the suppression of the direct channel of the sap. Four, more commonly two, *mère branches* are so laid to the wall that the central angle contains about 90°. The other branches are all treated as subordinate members.

Fruit Garden. The form *à la Dumoutier* (so called from its inventor, and described at great length by Lelieur), is merely a re-

Fig. 9.



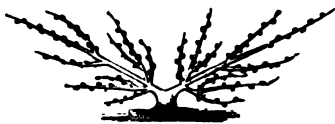
finement on the Montrueil method. It will be sufficient to mention to the experienced trainer (and none other can be expected to execute this form), that the formation of the tree commences with the inferior limbs, and proceeds towards the centre, the branches being lowered from time to time, as the tree acquires strength. What is most worthy of notice in this method, is the management of the subordinates in the pruning for fruit. When a shoot promises blossom, it is generally at some distance from the point of insertion into the old wood, and the intermediate space is covered with wood buds. All the latter, therefore, which



are between the old wood *a* and the blossom *c*, in the outer figure, except the lowest *b*, are carefully removed by *ebourgeonnement*. This never fails to produce a shoot, *b* in the inner figure, the growth of which is favoured by destroying the useless spray above the blossoms, and pinching off the points of those which are necessary to perfect the fruit. A replacing shoot is thus obtained, to which the whole is invariably shortened at the end of the year. The branch thus treated is called the *branche de reserve*.

The form *à la Siculle* is another modification of the Montrueil training, for an account of which we must again refer to the Horticultural Tour. Fig. 10. will give an idea

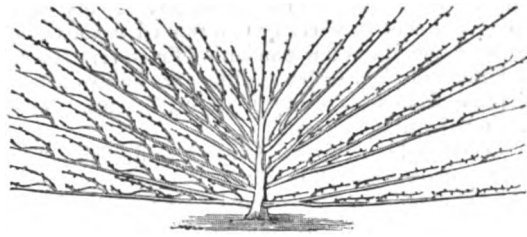
Fig. 10.



of the general arrangement of the tree. The two mother branches are laid in very obliquely, and are never shortened. On the subordinate branches only three buds are left, at the winter pruning, one terminal, and two at a considerable distance from each other on the sides of the shoot. This method, probably, is not well adapted to our climate.

Mr Seymour's form, as described in vols. i. and ii. of the Gardener's Magazine, approaches more nearly to the French methods than any other practised in this country. It will be seen, however, from the annexed figure (fig. 11), that he does not suppress the direct channel of the sap. This circumstance, although considerable stress seems to be laid upon it, is not essential to the plan, nor is perhaps the best part of it. The principal novelty is, that the bearing shoots are all on the upper sides of the mother branches, and that these bearing shoots are wholly reproduced once a-year.

Fig. 11.



Fruit Garden.

The one side of this figure represents the tree *after* the winter pruning, the other side before it has undergone that operation. It will be observed, that on this last side there are pairs of shoots on the upper parts of the mother branches. The lower shoot, that, namely, which has borne fruit, is cut out, and the other is brought down into its place. This replacing shoot is shortened to about eight or nine inches, care being taken to cut at a wood-bud; and at the time of disbudding, the best situate buds, and those nearest the base, are left for the future year's bearing. To this plan it is objected, by a writer in the Horticultural Register, that the annual excision of the bearing shoots produces a series of rugged and increasingly ugly protuberances at their base and along the upper surface of the principal members; an objection which also militates against Dumoutier's form. Mr Loudon, on the other hand, declares that Mr Seymour's mode is the most perfect in theory that has been described. For ourselves, we are inclined to prefer the old fan form, when well executed, as nearest the natural habit of the tree, and as best adapted to our uncertain climate. In the training of peaches, "whatever is best administered is best;" and there is no doubt that many ingenious gardeners have only partial success, because, from the multiplicity of their engagements, their trees can receive only partial attention.

For cold and late situations, Mr Knight has recommended the encouraging of spurs on the young wood; such spurs, when close to the wall, generating the best organized and most vigorous blossoms, and ensuring a crop of fruit. They may be produced, by taking care, during the summer-pruning, or disbudding, to preserve a number of the little shoots emitted by the yearly wood, only pinching off the minute succulent points. On the spurs thus procured, numerous blossom-buds form early in the following season.

Peach-trees, particularly in the north of England, and also in Scotland, require protection from atmospherical influences, especially at the period of blossoming. As already noticed, branches of spruce or silver fir, or other spray, are sometimes woven into frames, which are fixed in front of the trees, and removed during the day in fine weather (*Cal. Hort. Mem.* i. 276). Canvass or bunting screens are equally effectual, and perhaps more easily moveable. Straw-ropes, straw-nets, and a variety of other expedients, have been proposed, and may be used according to circumstances. If the screens be applied early in the season, great benefit may be derived from retarding the blossom till the frosty nights of spring be past. If the night frost have been severe, a copious sprinkling of water over the whole tree, before the influence of the morning sun be felt, has been found by Harrison to be very useful in gradually raising the temperature of the foliage and blossoms, and thus preventing injury from the sudden transition. To trees trained against hot-walls, if fire be used in spring, screens are indispensable; but perhaps hot-walls are most beneficially employed in ripening off the fruit of the late sorts of peaches in autumn; and, what is equally important, ripening the young wood of such sorts.

The ALMOND-Tree (*Amygdalus communis*), a native of China, may be noticed here rather on account of its

Fruit
Garden.

affinity to the peach and apricot, than because of its importance as a fruit-tree in this country. Every good garden should contain a tree or two trained against a west or east wall, and also a few standards; for in very fine seasons the latter will yield crops, and they are always ornamental in spring from the beauty of their blossoms. The sorts most worthy of notice are:

Tender-shelled Sweet Almond, or Jordan.

Common Almond, or Bitter.

The almond is generally budded on seedlings of its own kind; but for heavy soils, plum-stocks are preferable. The training and pruning of almond-trees on walls are much the same as in the peach or the apricot.

The APRICOT (*Prunus Armeniaca*) is a native of the Caucasus and China; it was cultivated by the Romans, and was introduced into England from Italy in the reign of Henry VIII. It has always, and deservedly, been a favourite fruit. The principal varieties are:

Red Masculine. Flowers small; fruit small, roundish, yellow, and red; flesh sweet and juicy; stone impervious; kernel bitter. This is a very early sort. The tree is tender, and requires a good aspect.

Breda. Flowers large; fruit roundish, sometimes almost four-cornered, orange-coloured; juice rich; stone small, impervious; kernel sweet. The true Breda is an apricot of first-rate excellence, and in the south of England the tree bears well as a standard.

Roman. Flowers large; fruit oblong, compressed, pale yellow; flesh soft; stone impervious; kernel very bitter. The tree is a good bearer, but the fruit is fit only for preserving. It is sometimes called the Brussels,—a name also occasionally given to the preceding.

Moorpark. Flowers large; fruit roundish, compressed, orange and red; flesh parting from the stone, juicy and rich; stone pervious; kernel bitter. This is generally considered the best apricot in this country: there are several sub-varieties known under different names, and it scarcely differs from the *Abrirot Pêche* of the French.

Turkey. Flowers large; fruit middle-sized, spherical, deep yellow; flesh juicy and rich, parting from the stone, which is impervious; kernel sweet. This is an excellent late variety.

Besides these, we may mention the Large Early, the White Masculine, Hemskirke, Musch-musch, and Royal. The last is a French variety of recent origin; it is excellent, and ripens earlier than the Moorpark.

Apricots are propagated by budding on muscle or common plum-stocks. Mr Knight recommends the wilding apricot as a stock for the Moorpark variety. Some gardeners have adopted the horizontal form of training, but the most usual, and certainly the best, is the common fan-arrangement. The fruit is produced on shoots of the preceding year, and on small close spurs formed on the two-year old wood. The apricot is a tree of much stronger growth than the peach, and therefore requires more room; this and the peculiarity of the spurs being kept in mind, the observations made on the training and pruning of the peach may be readily applied to this tree. It requires a summer and winter pruning. The former should begin early in June, at which period all irregular fore-right and useless shoots are pinched off; and, shortly afterwards, those which remain are fastened to the wall to become bearers. At the winter pruning, all worn-out branches, and such as are not duly furnished with spurs and fruit-buds, are removed. The young bearers are moderately pruned at the points, care, however, being taken to leave a terminal shoot to each branch. The most common error in the pruning of apricots, is laying in the bearing shoots too thickly.

The blossom comes early in spring, but is more hardy

than that of the peach; the same means of protection, when necessary, may be employed. The fruit often sets too numerous; and in this case it is thinned out in June and in the beginning of July, the later thinnings being used for tarts, for which purpose they are excellent. In the south of England, apricots are sometimes trained against espalier-rails, and occasionally planted as dwarf standards; and it is said that in good seasons the fruit from such trees is more highly flavoured than that from walls. In general, however, the protection of a wall is necessary. An east or west aspect is preferred in England, the full south being apt to induce meanness of pulp. In Scotland, the late varieties require the best aspect that can be afforded.

Fruit
Garden.

The PLUM-Tree (*Prunus domestica*) is considered by Sir J. E. Smith as a native of England. Many of the best cultivated varieties, however, have been introduced from France. The Horticultural Society's Catalogue enumerates 274 sorts, though probably all of these are not well ascertained. We shall first notice a few of the best dessert plums, and then give a list of select kitchen sorts.

The *Green Gage* is the *Reine Claude* of the French. Being a great favourite at Paris (as it is every where else), during the ferment of the Revolution, when all allusions to royalty were proscribed, it retained its popularity under the title of Prune Citoyenne. It was introduced into England by the *Gage* family, and the foreign name having been lost, it obtained its present appellation. It is a fruit of first-rate excellence, and exquisite flavour. The tree deserves a place against an east or west wall, where the fruit acquires a larger size, without materially falling off in richness of flavour. Treated as a wall-tree, it seldom bears well till it be old; and it is very impatient of exact training, as indeed most plums are. In warm situations it may be profitably grown on an espalier rail, or as a dwarf standard.

Drap d'Or. This is a small yellow plum of high flavour, ripening in the beginning of September. On a light soil the tree is a tolerable bearer; but on a heavy soil it seldom succeeds. The fruit precedes the green gage in ripening, and resembles it in quality.

Coe's Golden Drop. A fine large oval plum, excellent either for the table, or for preserving. It keeps well; and Mr Lindley informs us, that he has eaten it exceedingly good twelve months after it had been gathered. It requires the best aspect of a wall; and will scarcely answer in a bleak climate.

Precoce de Tours. An early sort; of a dark-blue colour, with a violet bloom; pulp yellow, and of a very pleasant flavour. The tree succeeds as a standard.

Blue Imperatrice. A fine late plum; a good bearer, but requiring an east or west wall.

Reine Claude violette, L. Hort. Cat. 232. Purple Gage, Lind. p. 455. A very high flavoured variety, resembling, colour excepted, the green gage. It succeeds on standards, but is improved by a wall. The tree is a good bearer.

Washington, L. Hort. Cat. 266.; Amer. Orchard. p. 268. Fruit rather large, roundish oval, pale yellow on the shaded side, and of a fine glaucous light purple on the exposed side; of excellent quality, scarcely inferior to the green gage. The tree is vigorous, and bears well against a wall, ripening about the middle of August. Being an early plum, it will, in favourable situations, succeed as a standard. It is, as the name imports, of American origin. It ought to be in every collection.

Couper's Large Red. This is described by Mr Barnet of the Experimental Garden, Edinburgh, as of large size, oval; suture deeply cleft on one side; skin of a bluish-glaucous purple on the exposed side, the other side dull red; flesh firm, adhering to the stone; ripens in the beginning of September on a south wall (in Scotland). Although

Fruit Garden. this is only a plum of the second quality, yet the tree well merits a place, on account of its great productiveness.

The following are also first-rate plums: D'Agen, Coe's Late Red, Downton Imperatrice, Kirke's, Nectarine, Blue Perdrigon, and White Perdrigon.

The Cheston, Fotheringham, Goliath, Orleans, Wilmot's New Orleans, La Royale, Sharpe's Emperor, Morocco, and some of the Damasks, though generally regarded as only second-rate plums, deserve notice, and should always have a place in large gardens. The Early Violet is an excellent bearer, and strongly recommended by Lindley to be planted in cottage gardens. Lucomb's Nonsuch plum should not be omitted; for when well ripened, it makes an approach to the green gage in flavour.

As kitchen and preserving plums we may specify the Damson, Shropshire Damson, Imperial Diadem, Isabella, White Magnum Bonum, Red Magnum Bonum or Imperiale; the Caledonia or Nectarine Plum, a large and handsome fruit; the Mirabelle, St Catherine, Wine Sour, and Bullace.

The finer dessert plums are propagated chiefly by budding on Muscle or St Julian stocks. They are sometimes grafted, but gum is apt to break out at the place of junction. The damson, wine sour, and other varieties, planted as standards, are generally increased by suckers, which the old plants afford plentifully. For placing against walls, trees which have been trained for two years in the nursery are to be preferred.

Plum-trees require ample space. On common walls they should be allowed from twenty to twenty-five feet of breadth over which to extend themselves. The horizontal mode of training is adopted by many. The fan form is also very commonly followed, and undoubtedly where there is room, it is the best. The shoots ought to be laid in at full length. The fruit is produced on small spurs, on branches at least two years old. The same spurs continue fruitful for several years.

Standard plum-trees require only to have a portion of their wood thinned out occasionally while they are young. The hardy kinds grown in this way are very productive, and in some places in the North of England, their produce forms a considerable article of food for several weeks, and also an article of commerce, particularly the wine sour, which is in great request for preserves. It is matter of regret that this branch of fruit culture has not, as yet, met with due attention in Scotland.

The CHERRY-TREE (*Prunus Cerasus*), is said to have been introduced into Europe from Pontus, by the celebrated Lucullus, A. C. 73. From the "London cries" of Lydgate, it appears that "cherries in the ryse," or in twigs, were hawked in London at the beginning of the 15th century. Excellent sorts have at various times been introduced from the Continent, and, of late years, several first-rate new varieties have been raised in England. Geans included, the Horticultural Society's Catalogue enumerates no fewer than 219 varieties; the following may be accounted some of the best.

The *Early Purple Griotte* may be first mentioned, as being the earliest of all cherries, generally ripening in the end of May. It was introduced from Geneva a few years ago, and is not yet generally known in this country.

The *May-Duke* is one of the most common, and, at the same time, one of the most valuable cherries. In fine seasons, and on a good aspect of wall, it begins to colour in May; and in such situations it is generally ripe from the middle to the end of June. The tree also bears well as a dwarf standard, but against a wall the fruit gets larger, and does not fall off in flavour.

The *Late Duke* is a rich sweet cherry, with most of the qualities of a *May-Duke*. It has a very close affinity to

the variety called the *Arch-Duke*, if it be not absolutely the same. On a standard it ripens in August.

Bigarreau or *Graffion*. This is an excellent fruit, especially when it gets the protection of a wall. In Kensington Gardens are trees of this sort a century old, which still produce abundant crops. In the cherry orchards of England, this sort is now pretty extensively cultivated, the fruit meeting with a ready sale, and vast quantities being required for the London market.

Harrison's Heart is nearly allied to the *Bigarreau*; it is rather of larger size and of fine appearance in the dessert, but inferior in flavour. The fruit has this advantage, that it is not liable to crack in wet weather.

Belle de Choisy, an excellent cherry. The fruit come in pairs, red, mottled with amber colour, tender and sweet. The tree bears well as a standard.

Black Tartarian, or Ronalds's *Black Heart*, *L. Hort. Cat.* 198; *Lind. p.* 149. Fruit large, obtuse heart-shaped; flesh half tender. "The quality is good, and in appearance it is one of the finest." It is a good bearer, and well adapted for forcing.

Waterloo. Raised by a daughter of Mr Knight, from the *Bigarreau* and *May-Duke*. Fruit black, large, obtuse heart-shaped, pulp tender. It ripens in July, and the tree is a free bearer.

Elton. Raised by Mr Knight from the *Bigarreau* and *White Heart*. Fruit large, heart-shaped, pale red, with a sweet delicious juice. The tree is a good bearer and hardy; the fruit ripens shortly after the *May-Duke*.

Kentish Cherry. One of the oldest and most prevalent cherries in England, abounding in the orchards of Kent. When ripe, it is of a full red colour, and its subacid flavour is very agreeable. It is commonly grown on standards, and ripens in the end of July. The *Hort. Cat.* distinguishes this from the *Flemish* or short-stalked, also a good cherry, to which it is certainly closely allied.

The *Morello*. This is a well-known late cherry, much in request for confectionery. The tree is a copious bearer, and on a south wall the fruit acquires a peculiarly rich subacid flavour. It succeeds perfectly well on a north aspect, where its fruit may be retarded to the end of October.

The *Amber*, or yellow Spanish, is a late fruit, and useful in prolonging the cherry season till the beginning of September. It requires a west wall.

Among other excellent varieties may be mentioned the *Black Eagle*, *Black Heart*, *Bowyer's Early Heart*, *Carnation*, *Downton*, *Florence*, *Knight's Early Black*, and the *White Heart*.

What are called *geans* or *guignes*, are cherries less removed from their natural state. They are usually grown as standards, and bear abundantly, particularly when old. The principal sorts are the *Amber gean*, a plentiful bearer, with sweet tender fruit; and the *Lundie gean*, a small black cherry of high flavour, which originated at the ancient seat of the Erskines in Forfarshire, but is also sometimes called the *Polton gean*, from a place near Lasswade in Mid-Lothian.

It may be noticed that, in the *Jardin des Plantes* at Paris, the black-fruited cherry-tree, or *Guignier*, is considered as a variety of *Prunus Cerasus*. The forest cherry-tree, *P. avium*, is named *Merisier*; and, besides varieties with red and with black fruit, there is a marked variety called *Bigarotier*.

The great quantities of pale-coloured cherries yearly sold in the London market are chiefly of the kinds called *White Heart* and *Bigarreau*. The dark coloured cherries are chiefly the *Courone*, which is often passed upon buyers for the *Black Heart*.

The stock preferred for cherries is the wild gean. Mr Lindley recommends that dwarf cherry-trees should be grafted, and two or three year-old stocks will do for them.

Fruit Garden.

Fruit
Garden.

For standard trees the stocks should be at least four years old, and they should be budded or grafted five or six feet from the ground. High stemmed cherry-trees, or *riders*, are often temporarily employed to fill up the vacant spaces on newly planted south walls, till the dwarf trees make sufficient progress; for these, stocks six or seven feet high are required.

Cherries are generally produced on small spurs which appear on the wood of the second year, and these spurs continue productive for an indefinite period. Any form of training may therefore be adopted; but, as the fruit is always finest on young spurs, perhaps fan-training, which admits of the frequent renovation of the bearing branches, is the most advantageous. A succession of young shoots should be laid in every year. For the Morello, which is of twiggy growth, and bears on the young wood, the fan form is absolutely necessary. Whatever method be adopted for general practice, care should be taken not to crowd the branches: nothing is more injurious to the productiveness of the trees than crowding of branches.

The PEAR TREE (*Pyrus communis*) is considered by botanists as a native of England. Many cultivated varieties seem to have been introduced by the monks; remains of perry orchards attached to monasteries of the 14th and 15th centuries being not uncommon even in Scotland; and very ancient trees of the finer dessert pears, such as the Colmar and Longueville, occasionally occurring.

The list of cultivated pears amounts to more than 600 names; but the number of those truly desirable is not large. We shall specify some of the best dessert fruit, following the usual division of Early and Late; the former class being in season in the months of August, September and October, and the latter in November, December, and January. It is to be premised, however, that even within the limits of Britain, climate makes an important difference in the culture and ripening of pears, of which a remarkable and extreme example may be seen in the Chaumontelle,—a fruit which is produced abundantly, and ripened on standards in the west of England, and in the environs of London, while it requires a south wall near Edinburgh.

I. Early.

Citron des Carmes, *L. Hort. Cat.* 190; Madaleine, *Lind.* p. 344, in Scotland often called the Premature. This is the earliest pear; it ripens in July, acquiring a yellowish green colour; it is sweet, but without much flavour. One tree, or at most two trees, may suffice. It requires a sheltered situation.

The *Green Chisel*, called also the Hastings, and, in the market, the Green Sugar. This is not a first-rate pear: but the tree is hardy and a great bearer. It ripens in August.

The *Summer Rose*. A handsome round pear, of a russet red colour, much resembling an apple, flesh white, rich, and sugary. This is an excellent variety, succeeds on a standard, and ripens in August.

The *Jargonelle* of Britain is the *Grosse Cuisse Madame* of French horticultural writers, and the *Epargne* and *Beaupresent* of French practical gardeners. This is the most common and most esteemed of our early autumn pears. Against a wall the fruit attains a large size and a beautiful appearance; but it is not of so high a flavour as from standards or espalier-rails. The fruit does not keep well, and the tree should therefore be planted in various situations to prolong its season, as it is rather difficult, when it disappears, immediately to supply its place. Beautiful dwarf trees may be formed by grafting on the common white thorn, which, however, are not very patient of transplant-

ing. The French *jargonelle* is green on one side and red on the other, and is a fruit of inferior quality.

The *Ananas d'Été* is scarcely noticed by our horticultural writers; but it seems a good variety to succeed the *jargonelle*. In the Experimental Garden at Edinburgh, it ripens on a standard in the second week of September. Mr Barnet describes it as of middle size, about two and a half inches broad, tapering a little towards the stalk, round at the top, eye small, slightly sunk in a cavity; red on the exposed side, green and somewhat russety on the other; flesh white, melting, with a pleasant sweet juice.

The *Summer Francréal*, or the *Yat* of Holland, may be noticed as another pear to follow the *jargonelle*, as it ripens about the middle of September. The tree proves, in general, a great bearer.

The *Longueville*. Some very ancient trees of this variety exist at Jedburgh: and, in the garden of the Regent Murray at Edinburgh, there are several which apparently are coeval with the times of the Regency. Though the name is now unknown in France, it is conjectured that the tree was brought over from that country by the Douglas, when Lord of Longueville, in the fifteenth century. The fruit is large, of a thick conical shape, green, and of considerable flavour. It ripens in September.

The *Green Pear of Yair*. This variety is of Scottish origin. The fruit is obovate, green, and of a middle size; flesh juicy and well-flavoured. It is sometimes placed on a wall to succeed the *jargonelle*; but it is always better from standards. On old trees, in light soils, it sometimes acquires a lemon colour, with a high musky flavour. Ripens in September and October.

The *Duhamel* is a good autumn pear, with a delicate flavour. It comes in immediately after the green yair, and helps to fill up a gap in the pear season, especially in Scotland.

The *Seckle*, of American origin, deserves a place; for the tree is of dwarfish size, and suited for a border standard, and it seldom fails to yield a crop. The fruit is small, but melting and well-flavoured. It does not keep.

The *White Doyenné*. This is an excellent sort, when used at its perfection. In warm situations, it is well adapted for dwarf standards. Ripens in September and October.

The *Red Doyenné*, or, as it is sometimes called, Gray Doyenné, is also an excellent autumn pear, doing best on a quince stock.

The *Elton*. Capital as a standard, and strongly recommended by Mr Knight. The tree produces healthy wood, and the fruit ripens in September and October.

The *Early Bergamot* was introduced from France in 1820. It is one of the very best early pears, as the tree bears freely on an open standard.

The *Autumn Bergamot*, or English Bergamot, has been long known as one of the most highly flavoured pears. It is not the Bergamotte d'Automne of the French, which is liable to canker in this country, while the English bergamot is not liable. In England the tree succeeds perfectly well as a standard; in Scotland it answers in good seasons, but here it is deserving of a west wall. The fruit is of a depressed globular shape, not large; the flesh juicy, sugary and rich, a little gritty next the core. It ripens towards the end of October, but does not keep.

To the list of summer and early autumn pears might be added the Musk Robine, Summer Bonchretien, and Williams's Bonchretien, requiring the protection of a wall; and the Lammas Pear of Scotland, "soon ripe, soon rotten," which succeeds perfectly well on open standards; Ambrosia, Belle et Bonne, Beurré d'Amalis, Bishop's Thumb, Caillot Rosat, and the Hazel Pear.

II. Late.

The *Brown Beurré* (Red and Grey Buerré of various

Fruit
Garden.

Fruit
Garden.Fruit
Garden.

authors). This is a first-rate melting pear. Against a wall with a good aspect, and with a fresh soil, the tree is an abundant bearer. Ripens in October and November.

The *Beurré de Capiaumont*. This is one of the best new Flemish varieties. The fruit is beautiful and well-flavoured. It ripens in October and November. The tree is a great bearer and hardy.

The *Moorfowl Egg*. There are two varieties, both of Scottish origin, of which the Galston Moor-fowl Egg is the best. The fruit is not attractive in appearance, but it is of admirable quality. The tree is hardy, and should be grown as a standard.

The *Gansel's Bergamot* (sometimes called Brocas' Bergamot). This noble pear, which has scarcely been rivalled, certainly not surpassed, by any of the imported varieties, is of English origin. Its blossoms are too tender to enable the tree to succeed as a standard; but it deserves a wall, and it should be placed on various aspects to prolong its season. The fruit ripens in November and December.

The *Marie Louise*. This excellent and large pear was raised by the Abbé Duquesne, and named after the Ex-Empress of France. "It is," says Mr Thompson, "one of the very finest, even as a standard, on which it bears abundantly; it succeeds also well on a north wall." In Scotland it is the better for an east or west aspect; but on a standard in a sheltered garden at Luffness, East Lothian, the fruit has attained the weight of 15 ounces. It ripens in October and November.

Beurré d'Arenberg. This most excellent pear was first brought into notice and recommended by the Caledonian Horticultural Society's deputation in 1817 (*Hort. Tour.* p. 321). It is perfectly melting and without grittiness, and rich, sweet, and high-flavoured. The tree succeeds either trained against an east or a west wall, or as a standard in any sheltered situation.

Crasanne. An old French sort, of excellent quality, with a tender and finely flavoured pulp. The tree deserves an east or west aspect on the wall, and it succeeds also on an espalier-rail. The fruit ripens in November and December.

The *Urbaniste* is a very good variety, of a large size, and ovoglobular shape; skin of yellowish colour, with small russet spots; flesh white, melting, with a sweet well-flavoured juice. In Scotland ripens against a south wall by the beginning of November.

Colmar. This is a first-rate pear, with a white flesh, and of high flavour. In Scotland the tree requires a south wall. From this the Poire d'Auch of the Continent seems scarcely to differ. It keeps till February or March.

Passe Colmar. An admirable Flemish variety lately introduced into this country; of excellent flavour; hardier, and a more abundant bearer than the preceding, and more easily ripened. It is in maturity in December and January.

Poire Neill was raised by M. Van Mons of Louvain, about the time of the visit of the Caledonian Horticultural Society's deputation to Belgium (in 1817). It is a large handsome fruit, with a very white pulp, mellow, and abounding with a saccharine and slightly musky juice. It is in season during the month of October, and should be gathered a few days before it be ripe. The tree succeeds as a standard at Edinburgh, and bears freely.

The *Easter Beurré*. Fruit large, obovate, green and brown; flesh whitish-yellow, buttery, and extremely high-flavoured. "It is," says Mr Thompson, "hardy and a good bearer; one of the most valuable spring sorts, compared with which the early pears of short duration deserve not a wall; its extensive cultivation for a long and late supply is, without hesitation, strongly recommended." In season from January to March. As the tree ripens its wood readily, it succeeds as a standard, even in Scotland, and yields fruit superior in flavour to that from the walls.

Beurré Rance. A Flemish variety raised by the late M. Hardenpont; "the best very late sort yet known," *Hort. Cat.* It ripens with difficulty in Scotland; but was found to be the best pear produced in competition at the meeting of the Caledonian Horticultural Society in the month of March 1835.

The following, respecting which our limits will not permit us to go into detail, may be considered as highly valuable sorts as late autumnal and winter pears:—Autumn Colmar, Aston-town, Echassery, Delices d'Hardenpont, Beurré Bosc, Beurré Diel, Beurré Spence, Bezi Vaet, Bezi de la Motte, Chaumontelle, Sylvange, Downton, Glout Morceau, St Germain, Duchesse d'Angoulême, Louise bonne, Hacon's Incomparable, Winter Nelis, Black Auchan, Swan Egg, Doyenné gris, Flemish Beauty, and Napoleon.

Some excellent new varieties of dessert pears have, of late years, been raised by Mr Taylor, gardener at Dunmore Park, under the directions of the noble proprietor, who is a scientific horticulturist. These have not yet been described or published; but the Dunmore Brown Beurré and Taylor's Seedling have been found to be of the first quality.

Of the *Kitchen Sorts*, or stewing pears, we may name the Bellissime d'Hiver, Catillac, Uvedale's St Germain, Warden or Black Worcester, and the Gilgil. These are placed on inferior walls, or upon espalier-rails, or kept as dwarf standards. The Uvedale's St Germain fruit often attains a large size, especially against a wall.

Pear-trees are grafted either on what are called free-stocks or on dwarfing stocks: for the former, which are intended for full-sized trees, the seeds of the wilding pear should be sown; but frequently the pips of the perry pears, and sometimes of the common cultivated sorts, are used. For dwarfing, the quince is preferred; but the white-thorn, as already mentioned, is occasionally employed. Where the space is limited, or the ground is damp, the dwarfing stocks are the more suitable. It is a favourite doctrine with some, that by budding or grafting on quince or hawthorn, pears of too melting and sugary a quality acquire firmness and acidity; to what extent this holds good has not been correctly ascertained, but that the stock exerts a certain degree of influence on the fruit is beyond dispute. Some of the finer pears do not take readily on the quince. In this case double working is resorted to. For example, the Virgouleuse may be easily budded on the quince, and the Beurré d'Arenberg will afterwards succeed freely on the Virgouleuse. It may be mentioned in passing, that the ancient horticulturists seem to have supposed that a fruit was improved by double working; and that the term *reinette*, a name applied to a class of apples, is considered as having been derived from the Latin *renata*, that is, a tree grafted upon itself.

In selecting young pear-trees, some prefer *maiden plants*, that is, plants one year grafted; but if good trees, trained for two or three years, can be procured, so much the better. It is important to ascertain that the stock and stem be clean and healthy, and to take great care that no injury be done by bruising or tearing the roots, in lifting and removing. The young trees may be planted at any time, in mild weather, from the fall of the leaf to the beginning of March. Wall-trees require from 25 to 30 feet of lineal space when on free stocks, and from 15 to 20 feet when dwarfed. Standards on free stocks in the orchard should be allowed at least 30 feet every way, while for dwarfs 15 feet may suffice. Where the trees are trained *en pyramide* or *en quenouille*, (see p. 637) they may stand within eight feet of each other. It is very desirable that the pear orchard should be in a warm situation, with a soil deep, substantial, and well drained, or free from injurious latent moisture. Without attention to these circumstances, pear-trees seldom succeed.

Fruit
Garden.

The fruit is produced on spurs, which appear on shoots more than one year old; the object of the pruner, therefore, ought to be to procure a fair supply of these spurs. The mode of training wall pear-trees most commonly adopted is the horizontal; but each of the forms already mentioned (p. 638), has its advantages, and is peculiarly adapted to some particular habit of growth in the several varieties. For the St Germain, and other twiggy sorts, we should prefer the fan form; for the Gansel's Bergamot, and other strong growers, the half-fan, or the horizontal. In the latter forms the trees may often be found fifteen, twenty, or even thirty years old, during which time they acquire an undue projection from the wall, and become scraggy and unmanageable. On the other hand, the finest fruit is produced on young spurs, clearly indicating the necessity of a frequent renovation of the spurs. This would lead us to prefer the fan-form, not, indeed, that which is commonly practised, and represented in fig. 5. p. 638, for in it the spurs are as immovable as in any other arrangement; but rather that recommended for peaches, in which there is a continual renewal of the branches. Or if we did adopt the horizontal form, which has certain advantages, it would be that modification exhibited in the right side of fig. 4. a, p. 638. This is the method followed by Harrison in treating the Jargonelle.

The summer pruning of established wall or espalier-rail trees, consists chiefly in the timely displacing or rubbing off of the superfluous shoots, retaining only those which are terminal, or well placed for lateral branches. Where spurs are wanted on the older wood, about two inches of a fore-right shoot are left; and if this be done early, that is before the shoot has become ligneous, it seldom fails to form fruit-buds. In horizontal training, the winter pruning is nothing more than adjusting the leading shoots, and thinning out the spurs, which should be kept close to the wall, and allowed to retain only two, or at most three buds. In fan-training, the subordinate branches must be regulated, the spurs thinned out, and the young laterals, which were loosely nailed in, during summer, must be finally established in their places. No crowding of branches should be permitted. Where horizontal trees have fallen into disorder, they may be renovated in the manner represented by fig. 466, left side, a procedure patronized by Mr Knight: or all the branches may be cut back to within nine inches of the vertical stem and branch, and trained in afresh, as recommended by Mr Lindley.

When some of the finer pear-trees produce an abundance of blossom, but do not set well, as not unfrequently happens, artificial impregnation may be partially resorted to; that is, the blossom of some other kind of pear, plentifully provided with pollen, is taken, and the farina is dusted over the best looking blossoms of the unproductive tree.

Summer and autumn pears should be gathered before they be fully ripe, otherwise they will not in general keep more than a few days. The Jargonelle, as Forsyth rightly advises, should be allowed to remain on the tree, and pulled daily as wanted, the standard fruit thus succeeding the produce of the wall trees. In reference to the Crasanne, Mr Lindley recommends gathering the crop at three different times, the first a fortnight or more before it be ripe, the second a week or ten days after, and the third when fully ripe. The first gathering will come into eating latest, and thus the season of the fruit may be considerably prolonged. It is evident that the same method may be followed with the Brown Beurré, Gansel's Bergamot, and any other which continue only a short time in a mature state.

The APPLE-Tree (*Pyrus Malus*), under the name of the Crab, is a native of Britain. Most of the cultivated sorts, however, are of foreign origin, and it does not seem probable, that we possess at present any good variety which is

more than two hundred years old. The finer, high-flavoured apples are prized for the dessert; the juicy and poignant sorts are in request for tarts and sauce; whilst those of a more austere nature are manufactured into cider. In the second edition of the *London Hort. Society's Catalogue*, no fewer than 1400 varieties are enumerated; many of them doubtless not well ascertained, but about 175 are pronounced to be first-rate sorts. With such a multitude before us, it would be vain to attempt detailed descriptions: we shall therefore do little more than give a classified list of those most worthy of attention, referring the reader for further information to the Catalogue itself, to Mr Lindley's *Guide to the Orchard and Kitchen Garden*, and to Mr Rogers' *Fruit Cultivator*.

Fruit
Garden.

Table Apples.

The earliest of these are the following:—The Juneating, or White Geniton, which begins to ripen in the end of July, and, being sugary and slightly perfumed, forms a welcome addition to the dessert. The Early Red Margaret is often cultivated; it is sometimes called Red Juneating, and in Ireland Peach Apple. The Summer Crofton, or White Crofton, is of Irish origin: the tree bears abundantly; and if the fruit be scarcely equal to the Juneatings for the dessert, it is very desirable for culinary purposes in August. The Thorle, originating in the Carse of Gowrie, is an early apple of considerable merit, although not mentioned by Mr Lindley. The Oslin or Arbroath Pippin, and the Early Julien of Clydesdale, also deserve notice. The Summer Golden Pippin, the Red Quarenden of Devonshire, and the Summer Calville, are likewise excellent early dessert apples.

To succeed these in the autumn we have many fine sorts, such as the Early Nonpareil or Hick's Fancy; the Red Ingestrie and Yellow Ingestrie, raised by Mr Knight; the Doonside, a capital Ayrshire production; Autumn Pearmain or Royal Pearmain of the London nurseries; Shepherd's Fame; Baird's Favourite; Pomme de Nieve; and Bourassa; Franklin's Golden Pippin; Old Golden Pippin; King of the Pippins or Hampshire Yellow; Please Lady; Kerry Pippin, one of the finest Irish apples; and the Cole Apple or Scarlet Perfumed.

The winter dessert apples are very numerous, so that only a few can be mentioned. The Ribston Pippin has long maintained a pre-eminent character for its rich juiciness and highly aromatic flavour. If the tree be trained to a wall, the fruit is much improved in size and beauty; but Mr Rogers, in his *Fruit Cultivator*, is decidedly wrong in thinking that it is heightened in flavour; for, on the contrary, the flavour is deteriorated. The Ribston is an old variety; and there is reason to fear that, like the Grey Leadington (formerly the boast of Scottish orchards), it is verging to decay and extinction. Hubbard's Pearmain is a Norfolk apple of the very finest quality, and too little known, especially in Scotland; the tree does not grow large, is quite hardy, and an abundant bearer, either as a standard, or when trained to an espalier-rail. The Dutch Mignonne is another admirable dessert apple, too little known or attended to. The Golden Harvey, or Brandy Apple of Forsyth, is a beautiful fruit, and Mr Lindley characterizes it as rich, juicy, spicy, and high-flavoured: the tree is not a large grower, is very hardy, and a great and constant bearer; and no garden, adds Mr Lindley, "capable of containing ten trees, ought to be without one of it." The Downton Pippin, raised by Mr Knight from the orange pippin of Herefordshire, dusted with the pollen of the old golden pippin, must not be omitted. The tree is a great bearer; the fruit ripens in the end of October and keeps till January; it has a brisk, subacid juice, which becomes saccharine. The fruit should not be gathered until it

Fruit
Garden.

has acquired a bright yellow colour, and part freely from the tree. To these may be added the Beacbamwell Seedling; Borsdorffer; Court of Wick Pippin; Wood's Transparent; Margil; Newton Pippin; Scarlet Crofton; Golden Pearmain; Scarlet Pearmain; Gravenstein; Paradise Pippin; Old Nonpareil; Ross Nonpareil; Scarlet Nonpareil; Golden Rennet; Reinette de Canada; Sykehouse Russet; and the Sam Young, an excellent Irish apple, brought into notice by Mr Robertson of Kilkenny.

Kitchen Apples.

These are very numerous, and the names of a few of the best can only be given. We begin with the Scottish Hawthornden; though the tree is liable to canker, yet it comes early into bearing, and the fruit is excellent. The Codlins may be next named, particularly the Spring Grove, the Kentish or Fillbasket, the Keswick, the Dutch, and the Manks. Dumelow's Seedling, the Fulwood, the Green Fulwood of Mr Mathew, the Nonsuch, Minshul Crab, Hanwell Souring, Cat's-head, Alexander, Brabant Bellefleur, Blenheim Pippin, Hunt-house of Yorkshire, Norfolk Beaufin, and Forman's Crewe, are all good. Among the best long-keeping apples are the Scottish Gogar Pippin or Stone Pippin; and the Yorkshire Greening and Northern Greening, particularly the latter; Winter Strawberry Apple; Winter Lud; Cambusnethan Pippin; Tower of Glamis; the Alderstone Pippin of East-Lothian, and the Lady Wemyss of Fifeshire. An apple called the French Crab (but which is of considerable size, notwithstanding this name), keeps firm in pulp till the return of the apple season; and the subvariety of this, called Hambleton's, is described in Ronalds' Pomona as still superior.

Some excellent new varieties of apples have of late years been produced both in England and Scotland. Mr Hardy of Bothkennar, by crossing the Court of Wick Pippin with the Nonpareil, has raised seedlings partaking of the good qualities of both parents, and these have received the warmest approval of the Scottish Horticultural Society.

It may be mentioned, that information respecting the fruits cultivated for the manufacture of cider and perry, may be obtained in the Pomona Herefordiensis, published by Mr Knight, and illustrated with engravings by the late Mr W. Hooker. Cider is principally made in Herefordshire and Gloucestershire, which are called the cider counties; but much is also produced in Devonshire. For the encouragement of its manufacture in Scotland, premiums have been offered by the Caledonian Horticultural Society, but little good Scottish cider has hitherto appeared.

Several kinds of stocks are used for apple-trees. The Dutch *Paradise*, propagated by layers, has long been used as a stock for dwarf apple-trees, whether intended for the wall or for standards. The *Doucin* of the French seems closely allied to this, if not identical with it. The bur-knot varieties increased by cuttings, or young codlin plants procured from layers, furnish stocks for the trees from which it is desired to raise new seedlings. For common purposes, the stocks raised from the pips of crabs or of cider apples are preferred. Stocks kept one or two years in nursery lines are fit for grafting upon; but if a considerably tall stem is wished, they must remain three or four years in the nursery, or till they attain five or six feet of height. In the Dutch nurseries, where apple-trees are trained for some years to the cup-shape, the table, the pyramidal, or the round forms, before they are sold to the public, the trees are repeatedly transplanted; but with us, where such forms are less sought after, the utility of more transplantations than from the seed-bed to the nursery lines, and thence to the garden, may, in Mr Knight's opinion, be questioned. Any common soil, provided the subsoil be dry, suits the apple-tree. Shallow planting should in all cases be practised.

VOL. XI.

Fruit
Garden.

The fruit, as in the pear-tree, is produced on spurs, which come out on the branchlets of two or more years growth, and continue fertile for a series of years. There is, therefore, no material difference in the pruning and training of the pear and of the apple tree. On walls, the horizontal mode of training is commonly followed, as best calculated to repress the vigorous growth of the tree; but for the nonpareil, and other twiggy varieties, perhaps the fan-form, or some modification of the fan-form, is preferable. For standards, where the soil is rich and the growth rapid, all that is necessary in pruning is to thin out the branches, and to prevent their crossing each other. Where there is little luxuriance, and in the case of all dwarfs, it is useful to shorten the branches occasionally, and to remove useless twigs. Dwarfs on paradise stocks may be treated almost like currant bushes, to the great advantage both of the size and beauty of the fruit. The winter pruning may take place any time from the beginning of November to the end of March. Cankered or diseased wood, and all unfruitful snags or rugged spurs, are then to be neatly cut out.

If the American blight, or woolly aphis (the *Eriosoma mali* of Leach) make its appearance on a tree, the utmost care should be taken to clean every part of the bark with a hard brush and some searching wash; for, should the insect be left unmolested, it will speedily spread over all the apple-trees in the neighbourhood. Indeed, the pest is so grievous, that the sacrifice of two or three trees is a small price to pay for its removal.

For the *storing of Pears and Apples*, there should be attached to every considerable garden a commodious fruit-room, well ventilated, furnished with fire-places or stoves to exclude frost, and fitted up with a variety of shelves. A northern aspect is the most suitable; and it is also desirable that there should be a dry, cool cellar under it, to be employed in retarding the ripening of some of the fugitive varieties. All the fruit intended for keeping should be plucked with the hand, or with such an implement as the fruit-gatherer invented by Mr Saul of Lancaster. The finer dessert fruits should be laid on shelves made of hard wood, not of fir, and covered with cartridge or writing paper, to prevent their imbibing any taint from the wood. The kitchen fruit may be kept in layers two or three deep, but not in heaps, and should be occasionally examined, when decaying fruit is to be removed. The *sweating* of apples and pears, formerly much practised, is now abandoned, as being attended with no useful effects.

The QUINCE (*Pyrus Cydonia*), allied to the apple, is a native of the south of Germany. It is but little cultivated in Britain. The fruit, which is austere when raw, is used to give flavour and poignancy to stewed or baked apples. The two principal sorts are the Portugal Quince and the Pear Quince, of which the latter is the most productive, while it serves the usual culinary purposes equally well as the other. Quinces may be propagated by layers or cuttings, or by grafting. Two or three trees planted in the slip or orchard, are in general sufficient. In Scotland, the fruit seldom approaches maturity, unless favoured by a wall.

The MEDLAR (*Mespilus Germanica*) is a native of the south of Europe, but has been naturalized in some parts of the south of England. The varieties worth notice are, the Dutch Medlar, with broad leaves; and the Nottingham Medlar, with narrow leaves: of these, the latter is considered the best. The fruit is gathered in November, and kept till it begin to decay, when it is served up in the dessert, and highly relished by some. The treatment recommended for the quince may be applied to the medlar.

The SERVICE-TREE (*Pyrus domestica*) is a native of the

4 N

Fruit
Garden.

mountainous parts of Cornwall, and, though not much cultivated, may here be noticed. The fruit has a peculiar acid flavour, and is used only when thoroughly mellowed by keeping. There is a pear-shaped, and also an apple-shaped variety, both of which may be propagated by layers, and still better on seedling plants of their own kind. Two or three trees may have a place in the orchard, or perhaps in a sheltered corner of the lawn. The tree is seldom productive till it have arrived at a goodly age. The fruit is brought to Covent-Garden Market in winter; but it is never seen at Edinburgh. Near Paris, the tree is a good deal cultivated under the name of *cormier*; and there are a number of varieties of the service grown in the north of Italy.

The MULBERRY (*Morus nigra*) is a native of Persia, and in this country requires a warm sheltered situation. The fruit is in request for the dessert during the months of August and September, having a rich aromatic flavour, and a fine subacid juice. Where it is abundant, wine is made from it. In Devonshire, a little of the juice added to full-bodied cider, produces a delicious beverage, called Mulberry Cider, which retains its flavour for many months. The mulberry is propagated from cuttings or layers, but, to expedite the production of fruit, it is useful to inarch small bearing branches on stocks prepared in flower-pots. Mulberry standard trees succeed only in the southern counties. These require no other training than an occasional thinning out of the branches. They are generally planted on grassy lawns, so that when ripe fruit falls from the higher branches, it can be gathered without having sustained injury. In the middle districts, espalier-rails may be employed, particularly under the reflection of a south wall. In colder situations, the mulberry must be treated as a wall-tree; and it has been recommended that the bearing shoots should be trained perpendicularly downwards. Mr Knight strongly advises the forcing of this fruit in flower-pots, much in the same way as is done with figs. The mulberry as a fruit is little known in Scotland; but a few aged trees exist in old gardens, and, in favourable seasons, afford their fruit.

The HAZEL (*Corylus Avellana*), one of our indigenous fruits, is the original parent of the Filbert, Cob-nut, Cosford-nut, Frizzled, and other improved varieties. These succeed best on a rich, dry loam, carefully worked, and receiving from time to time a slight manuring. They are generally planted in the slips, but thrive best in a quarter by themselves. The varieties are propagated by layers or suckers; but where there are stocks of the common hazel, the other kinds may be grafted upon them. The Cosford is generally preferred, being thin-shelled and having a kernel of high flavour.

The neighbourhood of Maidstone in Kent has long been celebrated for the culture of nuts for the London market; and as the best Kentish practice is scarcely known in other parts of Britain, we may enter a little into detail. The young plants are almost always suckers from old bushes, and are planted about ten or twelve feet apart. They are suffered to grow without restraint for about three years, and are then cut down to within a few inches of the ground. They push out five or six shoots; and these in their second year are shortened one-third. A hoop is then placed within the branches, and the shoots are fastened to it at nearly equal distances. In the spring of the fourth year, all the laterals are cut off close by the principal stems, and from these cut places short shoots proceed, on which fruit is expected in the following year. Those which have borne fruit are removed by the knife, and an annual supply of young shoots is thus obtained. The leading shoots are always shortened about two-thirds, and every bearing twig is

tipped. In the early spring pruning, a supply of male blossoms is left, and suckers are carefully eradicated. These Kentish nut-plantations somewhat resemble large quarters of gooseberry bushes, few of their trees exceeding six feet in height. The curious reader may be referred, for additional information, to the paper, on this subject by the Rev. Mr Williamson, in the 4th volume of the Transactions of the London Horticultural Society.

The WALNUT (*Juglans regia*) is a native of Persia, and the south of the Caucasus, and the fruit therefore seldom comes to complete maturity, except in the warmer districts of Britain. Besides the common walnut, there are several varieties cultivated, particularly the Large-fruited or Double Walnut, the Tender-shelled, and the Highflyer, which last is said (*Lond. Hort. Trans.* iv. 517) to be "by far the best walnut grown." The varieties can be propagated with certainty only by inoculating; but the operation is rather nice, and not unfrequently fails. Mr Knight's method is described in the London Transactions, vol. iii. p. 133. Plants raised from the seed seldom become productive till they be twenty years old. The fruit is produced at the extremities of the shoots of the preceding year; and therefore in gathering the crop, care should be taken not to injure the young wood. In Kent, the trees are thrashed with rods or poles; but this is a rough, and far from being a commendable, mode of collecting the nuts.

The CHESTNUT (*Castanea vesca*), like the preceding, has long been an inmate of our woods, in which it grows to a great size; but it seldom ripens its fruit in the northern parts of the island. Several varieties, remarkable for their productiveness and early bearing, have of late years risen into notice; particularly Knight's Prolific, and the New Prolific. These are propagated by grafting upon stocks raised from nuts; and when grafts are taken from bearing wood, fruit may be produced in a couple of years. The tree thrives best on a dry subsoil.

SMALL FRUITS.

The Red, White, and Black Currant, the Gooseberry, the Raspberry, the Strawberry, and Cranberry, are usually cultivated in our gardens, under the title of Small Fruits. Their economical uses in cookery, confectionary, and in the manufacture of home-made wines, attach to them considerable importance, and render a separate, however brief, account of them desirable.

The *Ribes rubrum*, LIN. includes as its varieties our Red and White CURRANTS. The principal subvarieties are:

Common Red,
Red Dutch,
Knight's Sweet Red,

Champagne,
Common White,
Dutch White.

Red and white currants are readily propagated by cuttings. They succeed in any sort of common garden soil; but seem to thrive best in warm moist situations, where they enjoy an abundance of air. A few plants are sometimes placed against walls, on which they are trained perpendicularly. Currants are sometimes planted in single lines in the borders which separate the plots in the kitchen garden; but it is generally better to confine them to compartments by themselves. In these they are arranged in quincunx order, at six feet between the lines, and six feet in the line. They may be transplanted at any time between the fall of the leaf and the first movement of the sap. They are trained *en buisson*, from single stalks of about a foot in height, care being taken to prevent the main branches from crossing each other. In winter the young bearing

Fruit
Garden.

Fruit
Garden.

wood on the sides of the branches is shortened down into spurs, from an inch to two inches in length. The leading shoots are left about six inches long. Some careful cultivators reduce the young shoots to about half their length as soon as the fruit begins to colour, an operation which is found to increase the size and improve the flavour of the berries.

Of *Ribes nigrum*, LIN. or black currant, there are several varieties, of which we need mention only the Common Black, and the Black Naples. The latter is the preferable sort. The black currant thrives in a moist, deep soil, and shady situation. Its culture is much the same as that of the other currants, but the young shoots are not spurred. All the pruning necessary is to keep the branches free of each other, and to promote a succession of young wood.

THE GOOSEBERRY.—Botanists distinguish two species: *Ribes Grossularia*, or rough-fruited gooseberry; and *Ribes uva crisp*, or smooth-fruited gooseberry. The gooseberry has always been a favourite fruit in Great Britain, and is said to be produced, in the middle districts, in greater perfection than in any other part of the world. Many very large sorts have originated in Lancashire, where the culture has been carried to a high degree of refinement; but it is to be regretted that *weight* seems, absurdly enough, to be regarded, in the prize competitions, as the sole criterion of excellence. Berries of twenty or even twenty-four pennyweights are boasted of; but such are always inferior in flavour. The following are some of those sorts recommended in the catalogue of the *Lond. Hort. Society*.

Red.—Red Champagne or Ironmonger, Crown Bob, Small Red Globe, Keen's Seedling, Lord of the Manor, Miss Bold, Leigh's Rifleman, Red Warrington, Wellington's Glory.

Yellow.—Yellow Ashton, Yellow Ball, Yellow Champagne, Golden Yellow, Smiling Beauty, Smooth Yellow, Yellowsmith.

White.—Bright Venus, White Champagne, Cheshire Lass, Crystal, White Crystal, White Damson, White Honey, Whitesmith.

Green.—Green Gascoigne, Pitmaston Green Gage, Green Seedling, Langley Green, Late Green, Green Laurel, Gregory's Perfection, Green Walnut.

Some admirable new varieties have of late years been raised in Scotland, particularly in Perthshire: the Delvine Porcupine and Delvine Ironmonger are not surpassed by the finest of the English productions.

In forming his collection, the horticulturist should especially select a few early and a few late sorts, and, by properly disposing the bushes in various situations in his garden, he may prolong the fruit season by several weeks. The same object may be further promoted by defending the late sorts from the attacks of wasps, by surrounding the bushes with bunting (the thin stuff of which ships' flags are often made), and by covering up the bushes with mats. This contrivance, however, answers better with currants than with gooseberries.

The gooseberry-bush affects a loose rich soil, which readily imbibes, but does not retain much moisture. We have seen it succeed perfectly well on little more than pure sand which was free from gravel. It thrives in any common garden soil. Gooseberries, like currants, may be grown in lines or compartments. They are propagated by cuttings, and are transplanted, in open weather, during any of the winter months. They are trained with single stems, from six inches to a foot high; and all suckers, which are apt to spring up from the roots, are carefully removed. Formerly it was the practice in Scotland to spur all the annual wood; but now the black currant system of pruning is more generally and advantageously followed. The ground on which the bushes stand is carefully digged once a-year; and ma-

nure, when necessary, is at the same time added. Nothing more is requisite than to keep down weeds, and to prevent the attacks of caterpillars, by picking them off on their first appearance. Gooseberry plants are sometimes trained on walls or espaliers, to accelerate the ripening, or increase the size of the fruit.

Fruit
Garden.

The **RASPBERRY** (*Rubus Idæus*) is, like the preceding small fruits, a native of Great Britain. The principal varieties are:

Red Antwerp,
Yellow Antwerp,
Barnet,

Common Red,
Cornish,
Williams' Double-bearing.

Of these, the first two have never been surpassed, and are generally sufficient for all common purposes. Raspberries are propagated from suckers, which are planted in rows five or six feet apart, and at three feet from each other in the rows. The fruit is produced on small branches which proceed from the shoots of the former year. Every year they throw up a number of shoots from the root, which bear fruit the subsequent year, and then die. In dressing the plants in winter, all the decayed stalks are cut away, and of the young shoots only three or four of the strongest are left, which are shortened about a third. These, as they are too weak to stand of themselves, are sometimes connected together by the points in the manner of arches, and sometimes they are attached to a stake. Perhaps the best support is obtained by fastening the points of the shoots to a slight horizontal rail or bar about four feet high, and placed a foot and a half on the south side of the rows. By this means the bearing shoots are deflected from the perpendicular to the sunny side of the row, and are not shaded by the annual wood. The ground between the rows is well digged in winter, and kept clean. Fresh plantations of raspberries should be made every six or seven years. The double-bearing varieties, which continue to bear during autumn, require light soils and warm situations. It may be mentioned that the crop of any of the varieties may be retarded by breaking off the points of the bearing shoots at an early period in spring; but, like all other fruits, its flavour is highest when it is allowed to ripen at its natural season.

The **STRAWBERRY** (*Fragaria*) belongs to the same natural family as the raspberry. Amongst the numerous kinds cultivated in our gardens, botanists have distinguished several *species*, but as these distinctions imply no difference in culture, and as it is difficult to trace them amid the "sportings" of the hybrids, we shall not pretend to enumerate them. Scarcely any plant more readily slides into seminal varieties; and indeed, till lately, in consequence of the irregular prevalence of local names, their whole nomenclature was a chaos of confusion. At the instance of the Horticultural Society of London, Mr Barnet, now of the Experimental Garden, Edinburgh, undertook a revision of the subject, and, with great acuteness and discrimination, has removed much ambiguity, and, as we hope, has finally settled the names of the existing varieties. His paper, which is well worth the perusal of every student of horticulture, is in the 6th volume of the London Transactions. In the second edition of the Catalogue of the Lond. Horticultural Society no fewer than 112 varieties are enumerated. But the following are sufficient, and an asterisk is prefixed to those most worthy of cultivation in small gardens.

American Scarlet,
Coul Late Scarlet,
• Grove End Scarlet,
• Old Scarlet or Virginian,
• Roseberry,

Black Roseberry,
Elton,
• Knevett's,
Sweet Cone,
• Keen's Seedling,

Fruit
Garden.

Taylor's Incomparable,
• Old Pine or Carolina,
Wilmot's Superb,
Black Hautbois,

• Large Flat Hautbois,
• Prolific Hautbois.
• Alpine, red and white,
Wood, red and white.

Fruit
Garden.

The strawberry plant is propagated from runners or from seed. When runners are employed, they are sometimes planted in autumn, or rather as soon as they have struck root into the ground. Most commonly, however, they are permitted to remain unseparated from the parent plants till spring; a practice which debilitates the old plants, and prevents the earth between the rows from being stirred. As, upon the whole, spring planting seems preferable, it would perhaps be well to adopt the practice of some gardeners, who are at pains to prick out the offsets, as soon as they are rooted, into beds of rich soil, from which they are transplanted into their proper places early in the spring.

The desire of new varieties has encouraged the practice of propagating by seed; and Keen, Knevet, and others, have been extremely successful. Mr Knight having observed that the young runners of the alpine strawberry flower and ripen fruit the first year, was led to adopt this mode of reproduction, and has followed it with the happiest success. Early in spring he sows the seed in flower-pots, which are put into a hot-bed; and as soon as the plants have attained a sufficient size, they are transplanted into the open ground. They begin to blossom soon after mid-summer, and continue to produce fruit till they be interrupted by frost. Thus Mr Knight is inclined to treat the alpine strawberry as an annual plant. The same practice has been recommended in France by M. Morel de Vindé (*Cal. Hort. Mem.* vol. iii.), but he very properly preserves his plants for three years, sowing every year a successional crop. Mr Keen has applied this method of culture to the wood strawberry, and we doubt not but it might be extended with beneficial effects to the Old Scarlet and others of the less artificial varieties.

A clayey soil or strong loam is considered as best suited to strawberries. On a sandy or very light soil they seldom succeed; and in close situations, and over-manured ground, most varieties produce little else than leaves. Before planting, the ground is manured and trenched or digged over deeply, and when stiff and compact, is very carefully worked. Keen and others in the neighbourhood of London, grow their strawberries in beds, three rows in each, with an alley between them. The market gardeners of Edinburgh, who, in the culture of this fruit, are perhaps not excelled by any, plant in rows two feet asunder, and from a foot to fifteen inches in the rows. When the weather is dry, the young plants are watered till they be well established. As little fruit is produced the first year, a line of carrots, onions, or other vegetable, is often sown between the rows for one season. In May the runners are cut off, with the view of promoting the swelling of the fruit. During dry weather, careful cultivators water their plants while in flower, and particularly after the fruit is set, and occasionally till it begin to colour. The old practice, from which the fruit derives its name, of putting straw between the rows to prevent the soiling of the fruit, has been recently revived; and where there are lawns, the short cut grass may be employed for the same purpose. As soon as the fruit season is over, the runners are again removed; the straw or grass is taken away, and the ground hoed and raked. In October the runners, the reclining, but *not the erect*, leaves are cut away, and the surface of the earth is stirred with a three-pronged fork, great care being taken not to injure the roots. Strawberries may be raised from the same ground for an indefinite space of time, but the plants should be renewed every third or fourth year. In the garden they are generally put in a quarter by themselves, and it should be one fully exposed to the sun and air. The alpine and wood varieties may be placed in situa-

tions rather moist and shady, as edgings in the slips, or in rows behind walls and hedges, in which situations they succeed perfectly well, and produce fruit late in the season.

Strawberries have always been a favourite dessert fruit. They likewise form an excellent preserve; and from their freedom from excess of acid, seem well adapted to the manufacture of native wine. To this purpose they have been only partially employed; but the samples of strawberry wine which we have tasted had more of the vinous flavour, than any other of our home-made wines. The culture of strawberries is the most lucrative part of the employment of the market gardener, at least near large towns. It is not uncommon for him to realize a clear profit of L.30 or L.40, or even more, per acre, of strawberry ground. The greater the diligence and assiduity of the cultivator, the greater will be his returns. It is a common and just remark, that too little labour is, in general, expended upon strawberries, and by the ignorant and unskilful gardener least of all.

Strawberries are easily forced. The Old Scarlet, Grove End, and Keen's Seedling, are most suitable for this purpose. They are potted in April, with rich soil, two or three young plants being put into each pot eight or ten inches in diameter. During summer they are kept in a warm situation and encouraged to grow, the flowers and runners being carefully picked off. In the beginning of winter they are sheltered in cold frames, and are afterwards successively placed into hot-beds or forcing-houses, so as to keep up a succession. The air is kept moist, and they are plentifully supplied with water. Where the means are abundant, a moderate supply of fruit may be maintained during the late winter and the spring months.

CRANBERRY. The culture of the American Cranberry (*Vaccinium macrocarpon*) was introduced by the late Sir Joseph Banks, and deserves particular notice, for it is altogether overlooked by Lindley and other horticultural writers. The plant is distinguished by the smoothness of its stems, and the largeness of its fruit. It grows freely, and produces its fruit readily in any damp situation; but where there is a pond, it may be cultivated with the greatest success. On the margin of the pond stakes are driven in, a short way within the water line; boards are so placed against these as to prevent the soil of the cranberry-bed from falling into the water. A layer of small stones is deposited in the bottom, and over these, peat or bog earth, mixed with sand, to the extent of about three or four inches above, and half a foot below the usual surface of the water. Plants of the American cranberry placed on this bed, soon cover the whole surface. There is a variety which is very shy in yielding its fruit, and this should, of course, be avoided. From a bed thirty or forty feet in length by five or six in breadth, a quantity of berries may be procured, sufficient for the supply of a family throughout the year. The fruit is easily preserved in bottles. The native Cranberry (*Vaccinium Oxyccocos*) may be treated in the same manner, and in some places is very successfully cultivated. At Culzean Castle, the seat of the Earl of Cassilis, in Ayrshire, the cranberry ground is surrounded by a ditch, the water from which is made to filter through among stones and stakes to the interior, so as to keep the cranberry plants constantly supplied with moisture. In the same garden a second compartment is dedicated to small fruits of this class, having in the centre a rock-work planted with Whortle-berries (*Vaccinium vitis-idaea*), and around the rock-work beds of American Cranberry, of Scottish Cranberry, and of Crowberry (*Empetrum nigrum*), also native.

The following plants produce fruit, some of them abundantly in a wild state; others sparingly in our gardens, but

Forcing
Garden.

they can scarcely be said to come within the province of Horticulture: *Berberis vulgaris*, the Barberry; *Sambucus nigra*, the Elder; *Prunus spinosa*, the Sloe; *P. insititia*, the Bullace; and *Rubus Chamemorus*, the Cloudberry.

THE FORCING GARDEN

Is only a department, but an important one, of the Fruit Garden. The term *forcing* is strictly applicable only to those artificial processes by which vegetation is in a considerable degree accelerated; but in common language it has been applied to all those operations in which glazed frames or houses are concerned, though they may be employed merely in aiding the common progress of nature. For the sake of convenience, we shall adopt the term in its broadest acceptation. After some preliminary observations we shall first speak of the structures, and then of the fruits and vegetables which are cultivated in them.

The principal object of hot-houses, and other structures of a similar nature, is to produce an artificial temperature and humidity of the atmosphere, which shall resemble, as nearly as possible, the climate in which the fruits or plants naturally grow. A command of heat is obviously a primary requisite. A regulated admission of air, and the presence of a certain degree of moisture, are in the next place necessary. Lastly, without the free access of light, plants become blanched or are destroyed by the moisture which they generate. These, then, are the conditions which limit the form of hot-houses; when these are attained, any form may be adopted which invention can devise, or wealth execute; but every true lover of the art will aim at simplicity, and will deprecate useless expenditure, so often exhibited in this department, as injurious to the character as well as to the progress of horticulture.

Artificial Heat. Forcing-houses are heated by means of *flues* conveying smoke and heated air; by *pipes* conducting steam or hot-water; by so constructing the glazed house as to increase the action of the rays of the sun; and sometimes by the fermentation of vegetable substances.

Flues are generally constructed of common brick, though occasionally fire-brick is employed in the *neck*, or that part of the flue immediately adjoining the furnace. The bricks in the side walls are placed on their edges, and the top covering is of tile an inch and a half in thickness. In districts where sandstone-flag abounds, the covers are often formed of it. Horticultural writers have recommended that flues should be about eighteen inches deep, and of nearly equal breadth; but to obtain the greatest quantity of heat, it clearly appears from the experiments of Mr Stevenson (*Cal. Hort. Mem.* i. 143), that, where possible, the breadth should be nearly double the depth. It is advantageous to detach flues as much as possible from the walls of the building which incloses them, in order that the heat may be communicated to the air only. Formerly they were often built, sometimes one above another, with only one side exposed, a practice which, as it occasioned great waste of heat from conduction, has been generally abandoned. When it is necessary to lead one flue above another, or to make it return upon itself, spaces should be left between them, to allow the free emission of caloric from every side.

With a view to economy of fuel, can-flues and cast-iron cylinders have been proposed, and occasionally adopted, but their use has not hitherto become general. The arrangement of flues depends upon the nature of the house; it may, however, be remarked generally, that as heated air has a tendency to ascend, they should be placed as near as can be done with convenience to the front of the house; where, of course, the sloping roof is lowest. It is likewise useful to introduce a flue at that part of the structure which is most exposed to any refrigerating influence.

The furnace is most properly situate behind the house,

and is generally covered by a shed. For the most part it is constructed so that the upper part of its arch shall be on a level with the top of the flue; but where a considerable heat is required, as in pine stoves, it is found preferable to sink the furnace, in order to produce a *neck* or rise of about a foot and a half in height, which moderates the intensity of the heat on its first entrance, and, by increasing the draught, causes the fire to burn freely. The size of the furnace depends upon the kind of fuel employed. Where coke or charcoal is used, it may be about eighteen inches square; but where small-coal, turf, or peat is to be burned, it should be two feet or even two and a half square, by two feet in height. A large furnace ensures the continuance of the fire, a fact which in practice has received too little attention. To resist the effects of heat, the interior should be lined with fire-brick. The roof should be strongly arched. The door may be about a foot square, and when it is double, as it ought always to be, the outer half should be a little larger than the inner. The grate is of the same breadth as the door, and may extend about two-thirds of the length of the furnace. The ash-pit is equally wide, and from fifteen to eighteen inches deep; it is furnished with a ventilator in the door to regulate the admission of air. In practice the furnace, and especially the ash-pit, should be kept clear of ashes; as by this means, coals of an inferior quality may be burnt with ease. We know an instance in the neighbourhood of Edinburgh, where a number of large furnaces were maintained for several years by the mere refuse of a coal-yard attached to the mansion of a considerable family.

In Plate CCXC. fig. 1 and 2, are given a longitudinal section and plan of the common garden furnace. It is surrounded by a double wall to prevent the escape of heat.

Mr Witty has invented a new furnace, which is possessed of valuable qualities. A vertical section of it is given in Plate CCXC. fig. 3. The fuel is supplied by the door at *a*, and is pressed down the inclined plane towards the grate *c*, by an apparatus placed at the head of it; but this method being complicated, has given way to several modifications, in which the door *a* has been found the most useful, the fuel being pressed forward by the common tools used for feeding furnaces: *b* is the door for regulating the fuel on the grate *c*. In its progress, the whole surface of the coal along the inclined plane is constantly kept in a state of inflammation, the flame having naturally a tendency to burn upwards. In this way the greater part of the fresh coal is carbonised, that is, the gas is separated from it and inflamed, leaving only coke. The strong combustion of the coke at the grate produces heat enough to carbonise the coal, and air enough to inflame the gas. This furnace, therefore, not only consumes the smoke, but effects a considerable saving of fuel.

Steam. Of late years steam has been applied with success to the production of an artificial climate in glazed houses. It is more genial than fire-heat from flues, being less contaminated, and more equable and pliant in its distribution. In steam hot-houses the plants can scarcely ever be liable to suffer from scorching heat; the air continues pure and untainted, and persons visiting the house are much less liable to be annoyed by the smell of smoke and soot. It is neater in all its arrangements within doors, and precluding, without, the necessity of more than one furnace, and one chimney top, in a great measure removes the unseemliness of the heaps of coals and ashes with which common furnaces are usually surrounded. In districts where coals are dear, the saving of fuel is an object; and it has been found that seven bushels of coals go as far in keeping up steam heat, as ten bushels do in maintaining an equal temperature in the ordinary way. By merely opening a valve, the house may at any time be effectually *steamed*, that is, filled with the steam or vapour, and the

Forcing
Garden.

Forcing
Garden.

warm moisture thus applied to the plants, is observed to contribute remarkably to their health and vigour. To counter-balance these advantages, we are not aware of any defects, except such as may arise from the greater complexity of the apparatus, or at least its liability to disrepair and accident.

Steam is generated in a cast or wrought iron boiler, of an oblong form, furnished with safety-valves, and heated by a smoke-consuming furnace. As in the common steam-engine, the boiler is supplied from a cistern above, and is made to regulate itself by a simple contrivance. In the feed-head is a valve, which is opened by the sinking of a float, which descends in proportion as the water is dissipated in steam; and, being balanced by a weight, whenever a sufficient quantity of water is admitted, rises again, and shuts the valve. As steam may be conveyed, without materially impairing its calorific powers, to the distance of several thousand feet, one boiler is sufficient for heating all the glazed houses which are ever erected together; but a second is generally kept in readiness, to act as an auxiliary in case of accident, or in very severe weather. Steam is conducted from the boiler in a single main pipe, or in two parallel pipes, which, according to Mr Tredgold, may be only one inch in bore. The divarications of the pipes into particular houses are arranged somewhat in the manner of flues, and, indeed, are sometimes placed within these, or on them, when they already exist, as in Plate CCXCIII, fig. 3, below the passage *d*. These interior pipes are from three to six inches in diameter, in order to afford a greater radiating surface, and are supplied with sets of valves to admit, regulate, and exclude the heated vapour, according to circumstances.

The most perfect and extensive examples of steam-apparatus exist at Syon-House, the princely seat of the Duke of Northumberland, near Brentford, and in the nursery-garden of Messrs Loddiges at Hackney. At the latter place, glazed houses, to the extent of almost a thousand feet in length, and forming three sides of a square, are heated solely by steam from one boiler. The boiler is of an oblong shape, measuring eleven feet by four, and is made of malleable iron. In certain narrow houses, intended by Messrs Loddiges for greenhouse plants, a single steam-pipe is found sufficient. In other houses of considerable height and breadth, or where a higher temperature is required, as in the palm-house, the steam flue is made to describe two or three turns.

Water, contained in large vessels or pipes, is sometimes heated by steam, and so made the medium of conveying caloric to the atmosphere of glazed houses. Fig. 13, Plate CCXC., represents an instance of this arrangement. A small steam-tube, one inch in diameter, enters a water-pipe eight inches in diameter, and twenty-eight feet long, wholly within the forcing-house; it passes into the larger pipe at the centre, and after traversing its whole length and returning, it issues out immediately below the point at which it entered. It then forms a siphon, by which the condensed water is conveyed away. A more detailed description may be found in the *Lond. Hort. Mem.*, vol. iii. Applications of it are given in Plate CCXCII., fig. 6, *a*, and Plate CCXCIII., fig. 3, below the passage *c*.

Steam is sometimes employed to furnish bottom heat. In the garden of Mr Sturge, near Bath, a shallow cistern of water is heated by a steam-pipe, in the manner exhibited in Plate CCXC., figs. 15, 16. The cistern is covered with pavement, over which is a bed of small stones, then ashes or sand, into which the pots containing plants are to be plunged.

Steam has also been employed to heat flues. Plate CCXC., fig. 14, is a side view and section of a flue filled with small stones or broken bricks, and heated by means of a small steam-pipe passing along the lower part of the flue.

Along the upper side of this pipe are a number of small holes, becoming more frequent towards the farther end, to allow the escape of steam: there are, besides, a few perforations in the under side, to clear away condensed water. The flue has a slight inclination to that end of the house from which the water can be most easily drained.

Similar expedients were long ago employed, in the heating of forcing pits, by Mr John Hay of Edinburgh, a garden-architect of great judgment and experience. Plate CCXC., figs. 17, 18, represent a recent variety of this mode of supplying surface and bottom heat, by discharging steam into flues and chambers filled with stones. The steam is admitted by small pipes running along the central pit, in channels about four inches deep, and of the same width. These channels are crossed by others at right-angles; and at the points of intersection the steam is permitted to escape by two small holes, one on each side of the pipe. The pits must have a water-tight paved bottom, with a declivity of one inch in ten feet. The sides and covers of the channels are loosely jointed, and are permeable by the steam. Stop-cocks are attached to the pipes, so that the supply of vapour can be adjusted. Another mode of adapting steam to the production of bottom heat, may be seen in Mr Macmurtrie's Pine-Pit, to be afterwards described.

Hot Water. More recently the circulation of hot water in iron pipes or vessels has been successfully employed in producing artificial warmth. The temperature derived from this source has all the properties of steam-heat, with these additional advantages, that it is more steady, not being liable to interruption by the bursting of vessels, and more lasting, as water does not cool so rapidly as aqueous vapour.

The following explanation of the principle of the hot-water apparatus is given by the late Mr Tredgold, in an excellent paper in the *Lond. Hort. Trans.* vol. vii. "We may select the simple case of two vessels placed on a horizontal plane, with two pipes to connect them; the vessels being open at top, and the one pipe connecting the lower parts of the vessels, and the other the upper parts. If the vessels and pipes (Plate CCXC., fig. 4) be filled with water, and heat be applied to the vessel A, the effect of heat will expand the water in the vessel A; and its surface will, in consequence, rise to a higher level *a, a*, the former general level being *b, b*. The density of the fluid in the vessel A will also decrease, in consequence of its expansion; but as soon as the column *c, d*, of fluid above the centre of the upper pipe is of greater weight than the column *f, e*, above that centre, motion will commence along the upper pipe from A to B, and the change this motion produces in the equilibrium of the fluid will cause a corresponding motion in the lower pipe from B to A; and, in short, the motion will obviously continue till the temperature be nearly the same in both vessels; or if water be made to boil in A, it may also be boiling hot in B, because ebullition in A will assist the motion."

The figure referred to in the preceding quotation, representing the common tank boiler surrounded by a flue, with a cistern at the extremity of the pipes, exhibits the form in which the apparatus was first erected; but as in this arrangement the process of heating was very slow, and many changes have been made, the cistern has generally been abandoned, and boilers of various configurations have been adopted. In fig. 5, Plate CCXC., a longitudinal section, and in fig. 6, a transverse section, are given, of a flued tank boiler, in which the surface exposed to the heat being increased, the effect required is accelerated, and at the same time a considerable saving of fuel is effected. Fig. 7. represents a section of an oblong, close, semi-cylindrical boiler, in which the action of the fire is still more increased. Fig. 8. is a section of a greenhouse boiler, constructed by the Shotts Foundry Company. The fire is placed entirely

Forcing
Garden.

Forcing Garden. within the lower curved surface. This form is easily heated; but as there is no surrounding brick-work or masonry, it speedily cools. It is unnecessary to describe all the numerous modifications of this apparatus; but it may be proper to direct the attention of the reader to the close boiler, fig. 9, in which is shewn how the circulation may be conducted over a door or other obstacle. In this case the upper pipe must not ascend and descend twice: air-tubes ought also to be placed in a boiler, and on the highest part of the pipes; and the whole must be made considerably stronger than on common occasions. Fig. 12. is an isometrical elevation of a hot-water apparatus, for a vinery thirty feet long by eleven wide. A is the boiler, as in figure 4; B the upper or delivering pipe; C the principal part of the upper pipe, of a flat form, presenting a greater radiating surface, in proportion to the quantity of heat; D the descending limb; E the returning pipe, of a cylindrical form.

Mr Fowler has employed the siphon as a part of the hot-water apparatus; and in his tract on the *Thermosiphon*, as he calls it, has shewn how its various modifications may be employed in warming hot walls, as well as in heating glazed houses. The following statement of the principle is given in the *Gardener's Magazine*, vol. v. "Any one may prove that hot water will circulate in a siphon, by taking a piece of lead pipe, say of half an inch bore, and four or five feet long, bending it like a siphon, but with one leg a good deal more bent than the other, in order to give the descending water time and space for giving out its heat; and then, filling this tube with water, and placing one hand on each end to retain it full, immerse the extremities in a pot of water over a fire, (Plate CCXC., fig. 11). Supposing the water of an uniform temperature in both legs of the siphon, no circulation would take place; but supposing it to cool sooner in the long leg *a* than in the short leg *b*, then the equilibrium would be destroyed, and the water in the long leg *a* would descend, and draw up water through the short leg *b*; and this circulation would continue as long as the water *c* was maintained at a temperature above that of the surrounding atmosphere."

Mr Kewley's adaptation of the siphon is one of the simplest and most efficient that has been proposed. In Plate CCXC., fig. 10, *a, c, e*, are the two legs of a siphon, through the upper of which the heated water ascends, and by the lower descends. Immediately over the descending bend, a pipe connected with an air-pump is inserted, in order to fill the pipes, or remove the air which collects in the superior limb. Instead of the air-pump, a funnel with air-tight valves is sometimes employed. This mode of circulation has been adopted in some of the principal nursery-gardens near London.

Mr Charles H. J. Smith, in a communication to the Scottish Horticultural Society, has clearly shewn that the system of heating by the circulation of hot water in metallic pipes, is easily applicable, not only to any glazed house constructed with flues, but to any select portion of an existing fruit-wall, although already clothed with peaches, vines, or figs. In the last case, a small furnace and boiler are, of course, placed at the back of the wall; the expanding water rises to a cistern near the top of the wall; horizontal pipes, making three or four turns, are inserted into the south front of the wall (which is an easy operation, as the wall is usually faced with brick); and through these the water circulates, to the great increase of the temperature of the air surrounding the tree. The operation should be accomplished late in the autumn; the tree being carefully unnailed, bent forward, and secured from breaking, and as carefully replaced.

Mr A. Perkins has constructed an apparatus of small tubes hermetically sealed, in which water circulates, of a temperature varying from 300° to 400° Fahrenheit. The

contrivance is very ingenious, and has been pretty extensively employed in the neighbourhood of London, in heating warerooms: but as the opinions of horticulturists respecting its merits, as applicable to the forcing garden, are still divided, and as it has not as yet stood the test of much experience, it may be sufficient to give it this cursory notice. For further information, however, we may refer to the *Gardener's Magazine*, vols. viii. and ix.

To mention *the rays of the sun* amongst the sources of artificial heat, may excite a smile; yet it happens that, from the stagnation of air, the reflection of light from walls, and other circumstances, they often produce a very considerable proportion of the increased temperature of a hot-house. This species of heat, however, is materially affected by the admission of the air necessary to the growth and healthy state of the plants. We are not aware of its having been employed as a primary source of heat, except in the case of Dr Anderson's patent hot-house, in which heated air was kept, bottled up as it were in separate chambers; an arrangement too irregular and unmanageable to be of much utility in our variable climate.

Vegetable substances in a state of fermentation evolve a considerable quantity of caloric, and are much employed to produce *bottom heat* in hot-beds, pine or melon pits. In a few instances they have been applied to warm the atmosphere of vineries and peach-houses, in which, however, they have been found to be a poor substitute for the other means already explained.

In the management of artificial heat, some degree of caution is required. All the operations of nature are gradual; and in *forcing*, it is well to follow these as the safest examples. The judicious gardener will therefore apply his heat very gradually at first; he will increase it by degrees for several weeks, and, in particular, he will guard against any sudden decrease of warmth, as nothing is more necessary to success than that the course of vegetation be continued uninterruptedly through foliation, inflorescence, and fructification. He will cause the temperature to increase by day and decrease by night, to rise in summer and fall in winter. He will, in short, imitate as much as possible the natural and varying influence of the sun.

The admission of Air.—The deteriorating influence which all living plants are supposed to exert on the atmosphere, must operate with tenfold force in a glazed house, where the proportion of air to vegetable substance is infinitely smaller than under the open sky, and where the corrective agitations of the wind, and the changes of temperature, are much less perceptibly felt. The respiration of plants, and the exhalations of putrescent vegetables, require a constant circulation of the aerial fluid, and this is maintained by means of moveable sashes, and ventilators in the roof of the house. Of these, sashes seem preferable, as less apt to produce cold currents of air, which are always injurious to vegetation. It is, indeed, a disadvantage that, by sliding down over one another, they diminish the influx of light. In winter, however, when light, from its scarcity in our high latitude, is most valuable, they are seldom drawn down to any extent; and by having all the sashes moveable, the gardener, with a little attention, may correct, in a great measure, any inequality in this respect. Sliding sashes require a depth of rafter which greatly augments the shade in oblique sunshine, an evil which cannot easily be obviated. With fixed roofs, and more especially those which are curvilinear (to be immediately described), numerous ventilators are the only means by which a proper circulation of air can be obtained. Some very intelligent gardeners prefer having all the sloping sashes fixed, and ventilate chiefly by means of large windows at each end of the house, aided by small ventilators in front.

The quantity of air to be admitted from time to time, must vary with the season, the temperature required to be

Forcing Garden.

Forcing
Garden.

kept up, and the kind of plants cultivated. It should be given and withdrawn by degrees, particularly in the colder portions of the year. The sashes or ventilators, for instance, may be partially open by eight A. M., top air being given before front air; full air may be allowed about ten; a reduction should take place before three P. M., and the whole closed between four and five in the afternoon. In summer less caution is necessary, as in many cases the external air differs little in temperature from that within the house. Most commonly air is given only during the day, and is excluded at night, with perhaps an increase of fire heat. Judicious horticulturists will sometimes reverse this process. Knowing, for example, that in the West Indies chilly and cold nights usually succeed the hottest days, they will imitate nature, by shutting up the house by day, and throwing it open at night. This practice, however, supported as it is by analogy, is subject to many limitations, and can only be followed in our climate during the summer and autumn months. It is useful, notwithstanding, to remember the principle, though it admits only of partial application.

The admission of Light.—In addition to the heat with which natural light is always accompanied, there seems to be another property necessary to vegetation which, from some cause hitherto unexplained, is partly deranged by its transmission through glass. The fact, however, is evident, from the circumstance that plants thrive better near glass than at a distance from it, though the intensity of light is apparently undiminished. Hence gardeners have been anxious to distribute their finer plants in situations as close as possible to the roofs of hot-houses.

Connected with the admission of light, is the determination of the pitch or angle of elevation of the roofs of glazed houses. It is evidently of advantage that the rays of light should fall upon glass perpendicularly, as loss by reflection is then a minimum, or indeed little or nothing.¹ The angle necessary to obtain this result is easily deducible from the sun's place in the ecliptic. At the equinoxes, the sun's meridional height above the horizon, at any point of the earth's surface, is equal to the complement of the latitude of that place; and hence, in order that the sun's rays may be perpendicular at that period, it is only necessary to make the elevation of the roof of the hot-house equal to the latitude of the place. The angle for any other season may be obtained by subtracting, from the latitude, the declination of the sun, if at that time to the north of the equator, or by adding it, if to the south. These periods are of course selected in accordance with the time at which the direct rays are most required. Mr Knight proposes a general elevation of 34° for the latitude of London, an angle which corresponds to the 20th of May and the 21st of July. This would afford four months, from the 20th of April to the 21st of August, during which the angle of incidence at mid-day would not at any time amount to 9°, while the deviation at the winter's solstice would be 43°, and the loss of light from reflection would be little more than $\frac{1}{8}$. The Rev. Mr Wilkinson recommends 45°, a pitch extremely suitable for early vineries and pine-stoves. In this case the midsummer deviation would be 19°, and the loss $\frac{1}{10}$, and the midwinter deviation 30°, while the loss is nearly the same. From these statements, however, and from an inspection of the table already referred to, it is manifest that much greater exactness has been required in this matter than is at all necessary. The reduction of the opacity of the roof, arising

from the breadth and depth of rafters and astragals, is of much greater consequence. Accordingly, in some glazed houses, particularly those constructed of metallic substances, rafters have been omitted altogether; but this kind of structure leads to considerable difficulties in the admission of air.

We have taken it for granted that the frame-work is composed of wood; and if prime Baltic timber be procured, it will endure for nearly half a century. But in some cases rafters and sashes made entirely of metal, generally either malleable or cast iron, have been employed; and in others, a middle course has been steered, by adopting wooden mortices and metallic tenons. The great objections to the use of metal for rafters and sashes is, that it is too rapid a conductor of caloric, and too liable to contraction and expansion for the alternations of heat and cold; the expansion tending to render the sashes immovable, and even to loosen the walls; and the contraction being apt to fracture the glass, and to produce openings between the sashes at which hoarfrost may enter.

In order to secure the greatest possible influx of light, scientific horticulturists have proposed hot-houses with curvilinear roofs. It was remarked by Sir George Mackenzie, to whom the merit of the proposal is primarily due, that if we could find a form for a glass roof, such that the sun's rays should be perpendicular to some part of it, not on two days, but during the whole year, that form would be the best. Such a figure is the sphere, and he therefore proposes a quarter segment of a globe or semidome, the radius of which is about fifteen feet. The frame for the glass-work is formed of equal ribs of hammered iron, fastened into an iron plate in the parapet wall, and fixed at top into an iron ring connected with the back wall. There are no rafters or sliding sashes, but air is admitted by ventilators in the parapet and back walls.

This form of hot-house roofs has been warmly patronised by Mr Knight, who, however, is of opinion, that the house proposed by Sir George Mackenzie is too high in proportion to its length and breadth, and therefore recommends a smaller section of a sphere with a greater radius. His dimensions are forty feet long, fourteen wide in the centre, and, including the front parapet, twelve feet high. Mr Loudon, who, it is understood, was the first that actually erected hot-houses on this principle, has proposed, and in part executed, many other forms. He describes (*Encyc. of Gard.*) with great exuberance of invention, the *acuminated semidome*, the *acuminated semiglobe*, the *semiellipse*, and the *parallelogram with curved roof and ends*. With Mr Loudon we should certainly prefer the last mentioned. A considerable number of curvilinear houses have been erected in the southern part of the island, particularly as repositories for ornamental plants, such as in Messrs Loddiges' nursery-gardens at Hackney, the London Horticultural Society's garden, the Manchester Botanic Garden, and in various private gardens.

As far as we are aware, no extensive experimental investigation of the comparative merits of curvilinear houses has hitherto been made. A writer in the *Gardener's Magazine* (vol. ii.) found it necessary, during the summer months, to shade his pines growing in such a house, from nine, ten, or eleven o'clock in the morning, to three, four, or five in the afternoon, in order to prevent the plants from assuming a rusty tinge and unhealthy appearance. Another practical gardener complains (vol. v.) that "the circular

Forcing
Garden.

¹ The following is part of Bouguer's Table of Reflexions.—Of 1000 incidence rays, when the

Angle of incidence is	290 rays are reflected.
75°	222
70	157
65	112
60	57

Angle of incidence is	34 rays are reflected.
40°	27
30	25
20	25
10	25
1	25

Forcing
Garden.

roof concentrated the sun's rays so immoderately, that the tops of the vines were actually scorched, even when the doors and ventilators at the back were all open. This was always the case in summer; and in winter, it was with the greatest difficulty, and only with the assistance of mats, that they could keep out frost; the thermometer frequently indicating only 40° when strong fires were burning." A considerable portion of the superior lightness of the curvilinear houses is due to the absence of rafters, and as these may also be dispensed in plain roofs, the effect of these ought to be deducted in making a comparison. Perhaps, when every thing else is rightly arranged, there is enough of light in common houses. Scarcely any species of fruit, when cultivated in the open air, is exposed during the whole day to the action of the solar rays, but must unavoidably be shaded at times by leaves and branches. It is difficult to suppose that, in respect to illumination, there is any remarkable deficiency in pits and glazed houses, in which have been ripened pine-apples and clusters of grapes, at least rivalling, if not surpassing, the produce of the most favoured of their native climes. In the admission of air, in the quantity and convenience of trellises, and in other interior accommodations, it cannot be disputed that the old forms have the advantage.

It has already been said, that hot-house roofs of the common kind, are sometimes constructed without rafters or moveable sashes. A considerable increase of light is thus obtained; but this benefit is attended with an almost insuperable defect, namely, the difficulty of producing a free and equable circulation of air. It is indeed probable that the common or plain roofed hot-house will always continue the favourite form with gardeners. In it the rafters are arranged at equal distances, and are made of a deep and narrow form, with their under edges rounded off. Nicol recommends that they should be made two and one-fourth inches broad, by ten inches deep. Perhaps they might be a little broader and shallower with advantage. The size of the sashes depends on the magnitude of the house; their breadth, however, ranges from three and a half to four feet. Except in very large houses, sashes are always disposed in two tiers, the upper row sliding down over the under one. Where there are ventilators in the front wall or upright glass, the sashes in the upper tier alone require to be moveable, and, for the sake of convenience, they may be made considerably shorter than the others. They are furnished with cords, pulleys, rollers, and weights, though the last, with no very prudent regard to economy, are sometimes omitted. Formerly all hot-houses were constructed with upright sashes in front. One of the most eminent garden architects of the present day (Mr Atkinson), has discontinued the practice; and, except in ornamental structures, it is hard to say why it should not be laid aside altogether. Such sashes serve only to weaken the fabric, and increase its expense.

Formerly the panes of glass employed were of large size; but small panes are found to be more economical, being less liable to break, and more easily replaced. It is believed that a pane seven inches in breadth by six in length, is the cheapest form in which glass can be obtained. In glazing, it is important to keep the overlaps of the panes of small dimensions, perhaps from one-fourth to one-eighth inch in breadth. This diminishes the breakage which arises from the expansion, in freezing, of the water detained between the laps by capillary attraction. As a further preventive, the interstices are sometimes filled with putty, and occasionally with laps of lead or copper. This effects a considerable saving of glass and of heat, but imposes on the gardener the duty of increased attention in preventing the stagnation of air. The frame-work of houses should be well coated with oil-paint; the colour is usually white.

In closing these preliminary remarks, it is proper to ob-

VOL. XI.

Forcing
Garden.

serve, that although the construction of a forcing-house is always a matter of considerable importance, it is not the only, nor even the most important condition necessary to ensure success. Much care in management, skill in pruning, and knowledge in physiology, must be possessed and applied, in order to obtain abundant and regular crops of fine fruit.

The more minute details respecting the structure of glazed houses, we shall notice along with the peculiar culture required in each; and we shall take them in the following order: The Vinery or Grape-house, the Peach-house, the Cherry-house, the Fig-house, the Pinery, the Orangery, and the Melonry. The greenhouse and other botanical structures, will come more appropriately under review in treating of the Flower Garden.

THE VINERY. Structure.—The vinery is susceptible of a great variety of form; and, indeed, in this respect, seems more pliable than any other forcing-house. That form, however, which has been most commonly used, is the plane roof with sliding sashes; and such is the success with which it has been employed, and such its convenience for every purpose, that it is not probable it will soon be generally supplanted. The section of the Peach-house, Pl. CCXCI. fig. 4, will give an idea of the usual configuration of the vinery. Fig. 3. of the same plate is a section, and fig. 6. a ground plan of a curvilinear vinery, heated by hot-water. A vinery, with flues and two furnaces, is generally fifty feet long, twelve or fourteen wide within, the height of the back wall being ten or twelve feet. Where there is only one furnace, or where a hot-water apparatus is employed, the length of the house should not exceed thirty-five or forty feet. Small divisions are to be preferred; for where there is a considerable extent of glass, the cultivator, by applying his fires to the different divisions in succession, can prolong the crop from May to December. The parapet wall in front is commonly arched or built on lintels, supported by stone pillars; so that the vines, which are planted inside the house, close by the parapet, may send abroad their roots in search of nutriment. Sometimes the vines are planted without, and introduced into the house by slanting apertures in the front wall; but the former method, where possible, is the more eligible. The trellis used for training, is generally formed of wires drawn across the rafters, at the distance of a foot from each other. Of late the trellis has been divided into portions of a moderate breadth, which are placed vertically under the rafter. This form, exhibited in fig. 1, Plate CCXCI., is called the hanging trellis, and is described at length in the *Lond. Hort. Trans.* vol. vi. It leaves the middle of the sash open to the sun's rays, and allows the back wall to be covered with bearing wood, a thing which, in other circumstances, can scarcely be done with any beneficial effect. It must, however, be admitted, that, according to the experience of some, this arrangement is inferior to the common trellis.

It is of importance that the included soil and front border of a vinery should be fresh and rich, and of a considerable depth. Mr Griffin (in *Lond. Hort. Trans.*) recommends as a compost, "one-half of good loamy soil with its turf, one quarter of rich old dung, and one quarter of brick and lime rubbish; the turf well rotted, and the whole well incorporated." Plants raised from cuttings, and prepared for two or three years in pots, are preferred for the furnishing of a vinery; and when planted inside the house, there should not be fewer than two plants to each sash.

It is scarcely necessary to enumerate the particular varieties of the grape-vine, as adapted for a vinery, for every good variety deserves a place where there is room, and all those which have been already mentioned are occasionally planted. It may be remarked, however, that the kinds should be assorted according to the order of their ripening.

40

Forcing
Garden.

The early grapes, such as the Muscadines, should be planted in a house by themselves; those of a medium character, the Frotignacs, for example, may occupy a second; while the late Tokay, the Muscat of Alexandria, Nice, Syrian, and others, would be fit inmates for a third. This would produce a regular succession, and admit a uniformity of treatment in each house. Where there is not a suite of vineries, but only one large house, the late varieties should be planted near the entrance of the flues.

Pruning and Training. Very numerous have been the directions given in reference to these particulars; but we cannot here go into such details, nor is it necessary. The great object is the reproduction of bearing, that is, annual wood, over the whole surface of the house. When this is accomplished, the next matter to be determined is the number of eyes or buds to be left on each shoot, that is, whether we shall adopt the *short* or the *long* system of pruning. The former is most allied to the practice of foreign vineyards, and has been most successfully employed in this country. According to this method, all the lateral shoots are cut down to single eyes, as described in *Lond. Hortic. Trans.* iv. 104. For a particular description of the *long* system, we refer to the same vol. p. 246, or to London's *Encyclopædia of Gardening*, second edition, p. 548. To these references, we add a few general remarks. (1.) In this country, it ought to be the great aim of the gardener to make his vines grow as luxuriantly as possible; for the quality of the grapes, when properly ripened, is generally commensurate with the size of the berries. The borders should therefore be made rich; but they ought to be rather wide than deep, deep planting being adverse to the ripening of the fruit. (2.) In order to secure a proper degree of vigour, vines should be limited in extent, and pruned rather severely than otherwise. To enable us to circumscribe the plants, it would be well to introduce as many separate plants into the vinery as can be done without confusion. For an illustration of this principle, we may refer to the practice of the *vignerons* of Fontainebleau, as described in the *Pomone Française*, or in the *Lond. Hortic. Trans.* vol. vii. (3.) From the peculiar mode of growth in the grape-vine, the bearing branches have a tendency to recede from the centre to the extremities, and are often found in abundance only at the top of the trellis. Every young shoot near the front of the house should therefore be carefully husbanded, and cut back by way of reserve. Old wood ought to be removed as frequently as possible; and the skilful pruner will look at least two years before him. Nothing contributes more to regularity in the succession of bearing wood, than simplicity in pruning and training; and therefore all bending, and twisting, and traversing of branches should be avoided.

The summer pruning consists in removing with the fingers the useless lateral shoots, and pinching off the tender points of the bearing branches. The extent to which these bearing branches are allowed to run will depend on their vigour, and the position which they hold in the plant. Sometimes it may be needful to leave them ten or twelve feet long, but, in general, two or three feet will be sufficient. The shorter the better. They seldom or never fail to send out secondary laterals from their points: these and the others which succeed them are stopped at the second or even first eye, and the operation is continued until vegetation ceases. When the young grapes begin to swell, the bunches are thinned out, that is, berries are removed wherever they are too much crowded together; and the shoulders or sides of the bunches are supported by slender threads of bass-mat. The quality and weight of bunches should be regarded rather than their number. Nothing seems more contemptible than numbers of small and ill-ripened bunches of grapes, smeared, as they frequently are, with dust and honey-dew. Avarice not unfrequently cheats

itself in this matter; and it generally happens in the vinery, as elsewhere, that not he who desires most has most. The ripening, colour, and flavour of grapes on the tree are promoted by removing a portion of the foliage; this is to be done, however, only after the fruit has attained full size.

The forcing of the earliest vinery may commence in January. At first the temperature may vary from 50° to 55° Fahrenheit in the mornings and evenings. When the buds have burst, it may be raised to 70°, and in the flowering season it may be kept at 75°. At this season it is necessary that the air should be preserved moist by frequent steamings. Upon the appearance of colour in the fruit, the waterings cease, and air is copiously admitted. In the early vineries, it is necessary to continue the fire-heat without intermission: in the later houses this is not required, but it must be used occasionally, even in warm weather, to obviate the effects of damp.

The PEACH-HOUSE.—A peach-house, intended to be commanded by one furnace, is generally about forty feet long, ten or twelve feet wide, and fourteen feet high; but these dimensions may be varied considerably, according to the time at which the crop is desired to come into season. For early forcing, perhaps twenty-five or thirty feet in length, and seven or eight in breadth, are sufficient; while a house, in which the operations of nature are only to be slightly accelerated, may be extended to fifty feet. As in the vinery, the front wall is arched, to permit the egress of the roots. Upon this is usually placed a range of upright sashes, which are surmounted by the sloping rafters of the roof. A common form of a peach-house is represented in Plate CCXCI., in which fig. 4. is a vertical section, and fig. 5. is the ground plan; *a, a*, are the flues, *b* is the table trellis, *c* the trellis on the back wall; along with which, a hanging trellis, as in fig. 1, is sometimes employed, although this is not approved of by many. The flue, which is built on pillars, and returns on itself, occupies the centre of the house. The trees are trained to the two trellises *b* and *c*, and to the hanging trellis, if such be in use. Against the back wall three or four dwarf trees are planted, with intermediate *riders*, the latter being taken out at the end of four or five years at furthest. These, with three for the front trellis, make in all nine or ten trees for each house.

Plate CCXCII. fig. 1, represents another form of the peach-house, not so generally used as the former, but of equal if not superior merit. We have supposed it heated by a water apparatus *a, a*, but that is not an essential matter, as a common flue is equally admissible. There is no front glass, nor any trellis on the back wall, the trees being planted in front, and trained on a wire trellis *b*, attached to the rafters, and covering the whole surface of the roof. As the peach-tree is not found to extend much more than twelve or thirteen feet on the open wall, the length of the rafter, inside measure, need not do more than approach to fourteen feet. It is obvious that in such a house the trees must enjoy an equable, and, from their proximity to the glass, an advantageous degree of light. Besides being planted close to the front wall, they are not exposed to have their roots stunted in passing under flues, and through the interior soil of the house, which, in spite of every assiduity in watering and manuring, becomes hard and impoverished. Further, it has been estimated, that as far as roof and glass are concerned, four or even five such houses may be erected, at the same expense as three of the common form.

In Holland, peaches are forced in pits resembling the common hot-bed or melon-pit. The trees are trained on a trellis-work near the glass, and the air is heated by the fermentation of dung-linings. The method has been partially adopted in this country, with, however, the use of hot water. When garden-architects shall cease to be anxious

Forcing
Garden.

Forcing
Garden.

about making all forcing houses ornamental structures, this will probably be the general form in which early and tender peaches will be cultivated.

The pruning and training of peach-trees in the peach-house does not differ materially from the practice out of doors. Fire-heat is commonly applied about the beginning or middle of February; but where there is a large suite of houses, and an extended succession is wanted, forcing, as it then truly becomes, may begin a month sooner. At first the temperature is kept about 45°, but it is afterwards gradually increased to 50° or 55° Fahrenheit. While the trees are in flower, and till the fruit be set, the house is occasionally steamed, either by sprinkling water on the warm flues, or by admitting the vapour from the pipes, where steam is employed for heating. After this period, the foliage is washed, from time to time, with the garden-engine. When the fruit has stoned, or the kernels have been formed, the temperature is raised to about 60°. Water is now copiously supplied to the border; the fruit is thinned out; the various operations of disbudding and tying are performed, and air is admitted in abundance. After the end of April, little fire-heat is required for the peach-house. The trees often suffer from mildew: the best preventives consist in keeping the borders of the peach-house clear, and in good condition as to fresh soil, and in observing that nothing be permitted to obstruct the free circulation of air and full admission of sun.

It may here be remarked, that by curious cultivators several uncommon kinds of exotic fruits are occasionally grown with success in conservatories, vineries, hot-houses, or other glazed structures, along with the more regular or usual inmates. Among these may be mentioned the Loquat, *Eriobotrya japonica*; the Jamrosade *Eugenia jambos*; the Purple Granadilla, *Passiflora edulis*; the Granadilla vine, *P. quadrangularis*; the May-apple, *P. incarnata*; the Water-lemon, *P. laurifolia*; and the Sweet Calabash, *P. maliformis*; the Papaw, *Carica Papaya*; and the Banana, *Musa sapientum*. The Leechee, *Nephelium Litchi*, has ripened in our stoves; the Long-yen, *Euphoria longana*, has yielded its fruit at Syon-House; and the Mango, *Mangifera indica*, at the garden of Earl Powis. The China Guava, *Psidium cattleianum*, fruits freely in the vinery of the Experimental Garden at Edinburgh: the fruit is round, about the size of a small plum; of a fine claret colour; the pulp soft, only a little firmer than that of a strawberry, and of a delightful subacid flavour, making a most desirable preserve. The Carambola, *Averrhoa Carambola*, of the East Indies, has of late been added to our exotic fruits, by Mr Bateman of Knypersley, near Congleton: the fruit is of the size and shape of a duck's egg, but with longitudinal ribs on the sides; either in tarts or as a preserve, the flavour is described as exquisite. It may be noticed, that, both from the descriptions of intelligent travellers, and from the preserved fruit being sent to Britain, we know that numerous species of exotic fruit-trees exist, which have not yet reached us in a living state; and the introduction of these might form an object of innocent, pleasing, and commendable ambition to enterprising and wealthy horticulturists.

The CHERRY-HOUSE, in its general arrangements, resembles the peach-house, with the exception of the front trellis, the place of which is commonly occupied by a stage for pots of early strawberries or kidney beans. The cherry-trees are trained against the back wall: the house should therefore be narrow, and the roof steep. The operation of forcing generally commences early in January, with a very moderate temperature. Air is admitted freely till the flowers begin to expand, when great caution becomes necessary. When the fruit is setting, the temperature is

kept as steadily as possible at 50°: after it is set, abundance of water is applied to the roots and foliage of the trees. When the fruit is colouring, water is almost entirely withheld, and air is now freely admitted. During the whole process of forcing cherries, any excessive heat from the sun's rays must be carefully guarded against, by shading or by admitting of air. The kind of cherry usually preferred for forcing is the Common May-duke. A cherry-house ought to form a part of every large garden establishment; for nothing better distinguishes the tables of the opulent, in March and April, than ripe cherries and strawberries appearing in the dessert at that season of the year.

The FIG-HOUSE scarcely differs in form and management from the Cherry-house, the trees being trained to a back trellis, with the addition, however, of dwarf standard trees in front. At Kew there is a fig-house fifty feet long. Here the second crop is often the most productive. In 1810, we are told the royal tables were supplied with more than 200 baskets of figs, 50 of which were from the first crop, and 150 from the second. It is seldom, however, that a separate house is erected for this fruit. The fig succeeds very well as a dwarf standard between the front flues of a vinery, provided the roof be not too closely covered with the foliage of the vines. Of late, small standard figs have very commonly been grown in large pots, fourteen or fifteen inches in diameter, and placed in any of the forcing houses. In this way considerable crops of fig have been raised. The *Figue blanche* and the *Marseilles* are the sorts best adapted for forcing.

The ORANGE TRIBE (*Citrus*) are cultivated in Britain, rather as objects of curiosity and beauty, than for the purpose of affording a supply of fruit. Commerce with Portugal, Spain, Italy, and China, has brought this class of fruits within the reach of every one; and the copious importations which annually take place, have no doubt discouraged the cultivation of the plants. A few orange trees are nevertheless to be met with in most collections, and in large and sumptuous gardens, it is not uncommon to meet with glazed houses set specially apart for their reception.

The following brief notices of some of the cultivated species of the genus *Citrus* are derived principally from Mr G. Don's General System of Botany and Gardening, a work evincing singular accuracy and unwearied research, and from M. Risso's excellent paper in the *Annales du Muséum*, vol. xx.

C. Medica, the Citron, the Cedrate of the Italians, is a small evergreen tree. The fruit is large, of an oval form, and covered with a rough skin or rind, which is charged with a highly fragrant oil. The citron is generally used in confections. It is supposed to be a native of Media, and will scarcely ripen without protection in Britain. Three subvarieties of citron are described by Risso.

C. Limetta, the Sweet Lime. This is rather a tall tree, with diverging branches. The flower is of a fine white colour, composed of five oblong petals. The fruit is globose, with a black nipple-like protuberance at the apex, having a firm rind, and sweet pulp. The colour is pale yellow. It is a native of Asia, but cultivated in Italy. Seven varieties have been described.

C. Limonum, the Lemon. The petioles of the leaves somewhat winged; fruit oblong, with a thin rind adhering closely to the very acid pulp. This, like the preceding, is a native of Asia, but is cultivated in the south of Europe. There are numerous varieties.

C. Aurantium, Sweet Orange. The petioles almost naked; fruit globose, with a thin rind, and sweet pulp. Risso has enumerated nineteen varieties; of which the principal are, the China, the Portugal, and the Maltese.

Forcing
Garden.

Forcing
Garden.

The last has a blood-coloured pulp, with rich juice, and is now in much request.

C. vulgaris, Seville or Bitter Orange. The petioles winged; fruit globose, with a thin rind, and bitter juice. This sort is employed in making marmalade, and is also used in medicine. Twelve varieties have been described.

C. Decumana, the Shaddock. The petioles broad, with cordate wings; fruit large, weighing from ten to fourteen pounds, with a thick rind. This fruit was carried by Captain Shaddock from China to the British West Indies, where it first acquired the name which it now bears. It is now cultivated not only in the West India Islands, but extensively in South America. Four sorts are enumerated. Of all the Citrus tribe, this has the most beautiful foliage, and it is therefore not improperly selected for filling the back wall of a vinery.

The orangery, in this country, seldom differs in form, even where it is a separate structure, from that of the greenhouse. Most commonly the few orange plants which are kept, are grown in pots or boxes, and occupy a place with other exotics on the greenhouse shelves. At some places the orange trees are planted in conservatories erected for the purpose. In the neighbourhood of Paris, the orangeries are little better than dark sheds, in which the trees are kept protected during the winter months, light and air being given when the weather permits. At Woodhall, in Lanarkshire, they are trained against trellisses, under glass, and in this way produce abundant crops of fine fruit. We have there seen a single plant of the St Michael's orange, twenty-four feet wide and eighteen feet high, clothed with fruit.

Middle-sized plants are frequently imported from the Italian nursery-gardens, and this is the readiest way of procuring large specimens at a cheap rate. The plants are closely packed in boxes, with some grass or moss around the roots. Upon their arrival they are in a withered and dead-like state, and require considerable care and management to recover them from the effects of the voyage. When propagated in this country, they are budded on citron or Seville orange stocks; the former recommended by Miller as preferable. The seeds of the stocks are sown in pots, and the growth of the seedlings is aided, during the first and second summer, by the application of a slight bottom heat in a hot-bed frame. These are usually budded in August. The late Mr Henderson, gardener at Woodhall, used to graft his trees, employing scions formed of the wood of the second year. He also propagated by cuttings, considering this the quickest mode of obtaining plants. We may add, that this most successful cultivator of the orange tribe made it a rule to keep his trees rather cool, and with plenty of air in mild weather, till the fruit was fairly set; after which he found that he could apply more heat without the risk of the fruit failing.

The orange tree prospers in a rich, fresh, and rather strong soil; and in this country it is the practice to mix with it a considerable portion of well rotted dung. When grown in pots or boxes, the plant should be shifted, and the earth partly renewed every spring. In summer, copious waterings are given, and the leaves are syringed once or twice a-week. The heads are kept thin, and the branches which inconveniently cross each other are removed. When planted against trellisses, they are trained in the fan form; and in laying in the shoots, allowance is to be made for the size of the leaves in the different species.

The PINE-APPLE (*Bromelia Ananas*) is comparatively of recent introduction into Britain. It was nearly unknown to our horticulturists in the beginning of the eighteenth century; for Thoresby, the antiquary, kept a leaf of the pine-apple in his museum as a curiosity. It is now largely and successfully cultivated in all the principal gardens in

this country. Its culture requires all the ingenuity, judgment, and watchfulness of the skilful and diligent horticulturist. We shall, therefore, treat of it at considerable length. It derives its name from the general resemblance of its fruit to a large cone of a pine-tree. The fruit is a kind of pulpy strobilus, formed of coadunate berries, and crowned at top with a tuft of fine green pointed leaves. The flavour of the pulp is of the most exquisite kind. The plant is herbaceous, and the fruit-stem, which generally appears in the second or third year, is surrounded with long serrated leaves, resembling those of some species of aloë. The fruit grown in Britain is considered equal in all good qualities, and generally superior in size, to that reared in tropical countries. The *Lond. Hort. Catalogue* enumerates 56 varieties: of these the following may be deemed most worthy of notice.

The *Queen Pine* is very generally cultivated. Its fruit is of a cylindrical or tankard shape, of a yellowish colour inclining to orange, and sometimes weighs three pounds it is, at the same time, of excellent flavour. This kind produces with greater certainty than most others, and the fruit may be easily ripened in fifteen or eighteen months, from the planting of the crown or offset. It is, therefore, the most useful of all the pines. A subvariety called *Ripley's Queen* is also excellent.

The *Black Antigua* has leaves armed with large spines; the flowers are purple; the fruit cylindrical, averaging five pounds weight. It should be cut a little before it be quite ripe.

The *Black Jamaica*, or *Old Jamaica*. In this variety the spines on the leaves are small; the flowers purple; the fruit oblong, averaging about four pounds. This is an excellent kind, and is considered the best sort for fruiting during the winter months.

The *New Jamaica* is rather an inferior kind, but is pretty good when ripened in the summer time.

The *Brown-leaved Sugar-loaf* is a capital black variety; and the *Enville* a large, shewy, and useful pine.

The *St Vincent's*, or, as it is sometimes called, the *Green Olive*, has middle-sized spines, purple flowers, and pyramidal fruit, which average about two pounds and a half. It succeeds well to come in as a winter fruit.

The *White Providence* has small spines, dark purple flowers, and oblong fruit of a large size, averaging, when well grown, seven pounds weight, and sometimes exceeding twelve pounds. The colour of the fruit is at first brownish-grey, but at ripening it becomes of a pale yellow. The pulp is yellow, melting, and abounds with quick lively juice, but is not equal in flavour to some of the other kinds.

The *Trinidad* is remarkable for the great size of its fruit, which are said to attain sometimes to the weight of twenty-six pounds. Its average is stated in the *Hort. Cat.* to be twelve pounds. The spines are middle-sized, the flowers lilac, and the fruit pyramidal. Apart from its magnitude, it is, like the preceding, only a secondary fruit.

The following may also be named as first-rate sorts: Bagot's Seedling, Russian Globe, Green King with smooth leaves, Striped Queen, Sierra Leone, Brown Sugar-loaf, and Orange Sugar-loaf. And three or four more, though of inferior quality, may be noticed for their beauty, or curiosity, viz. the Blood-red, Otaheite, Scarlet, Welbeck Seedling, and the Havannah, the fruit of which last keeps long, and has sometimes been imported into this country from Cuba.

Structures for growing Pine-apples. The ananas plant has generally been found to require cultivation for two or three years before it perfects its fruit: its culture has, in consequence, been divided into three periods,—propagation, successional preparation, and fruiting; and each of these periods has its corresponding structure, viz. the nursing-pit, the succession-house or pit, and the fruiting-house.

Forcing
Garden.

Forcing
Garden.Forcing
Garden.

The *nursing-pit* has occasionally assumed a great variety of forms, respecting which, however, it is not necessary to go into minute detail. For summer use, a large glazed frame, placed upon a hot-bed of stable litter and tanners' bark, is perhaps the best hitherto devised. The Alderston Melon-pit, and Atkinson's Melon-pit, described under the head Melonry, are likewise very suitable for this purpose. In winter, it is desirable to have the assistance of fire heat, either from flues, or, what is better, from hot water; though this fire heat is not indispensable.

The *succession-pit* performs the same functions as the nursing-pit, but at a more advanced stage of the growth of the plant, and consequently requires an increase of size. With this difference, Atkinson's Melon-pit does very well for summer use. In colder seasons, we should prefer a pit similar to that represented Plate CCXCII, figs. 2 and 3, in which a hot-water apparatus on the siphon principle is employed. The plants are plunged in *a* (fig. 2), being a bed of sand or fine gravel; *b* is the boiler; *c* pipes for supplying the bottom heat; *d* exposed pipes for warming the included air. If the common bark-bed is preferred, the pipes *c* may be omitted. This pit may be fifty feet long, and seven wide. The sashes are raised from without, as in the common hot-bed. This plan is from the pencil of Mr Charles H. J. Smith, a young but very promising garden-architect, of whose assistance the writer of this article has had much satisfaction in availing himself in the designing of the plates. Mr Smith also proposes another form of a succession pit, exhibited in Plate CCXCII, fig. 11, entirely heated by hot-water. The surface heat is supplied by pipes in front; the bottom heat is kept up by small pipes from the boiler, passing through cisterns of water extending the whole length of the pit. In this case it would be necessary to apply the heat only during the day. The old succession-house, or that generally in use till within the last fifteen years, does not differ materially from the common pine-stove; but, owing to its great waste of heat, it either is or ought to be entirely laid aside.

In the *fruiting-house*, more room, greater height, and a more powerful temperature, are requisite; and to attain these objects, many varieties of structure have been devised: we shall notice those only which are most worthy of attention. Fig. 4, Plate CCXCII, is a section of Baldwin's Fruiting-pit. The roof is unequally ridged, the north or shorter side being slated and furnished with ventilators, to admit air. The sashes are immovable, and the laps of the panes are closely puttied. There is a path within, and a single turn of a flue behind. We should prefer the form exhibited by fig. 5, of the same plate, in which there are also ventilators *a a*, and a hot-water apparatus surrounding the whole pit. The dimensions of this may be fifty feet long, and nine feet wide; the glass being two feet and a half from the curb of the bark-pit in front, and five feet behind. Fig. 6, is a section of a pine-pit with a curvilinear roof, in which the astragals are parallel. A segment of an elliptical arch somewhat less than a quadrant, the origin of the curve being on the front wall, seems better adapted for a pit than any portion of a circle. This pit is supposed to be heated by a small steam-pipe passing through a large iron tank or cistern *a*, filled with water, on the same principle as exhibited in Plate CCXC, fig. 13. A section of the old-fashioned pine-stove is given in Plate CCXCII, fig. 7. This is a lofty structure, in the vinery form, with front sashes. It used to be forty or fifty feet long, and twelve or fourteen feet broad, and was commanded by two flues. In addition to the pine plants in the pit, the roof is also partly covered with vines, a practice justly condemned by Nicol. We are also disposed to agree with that experienced writer regarding the disuse of the pine-stove itself. Besides other grievous faults, a single house affords too little room; and it is a matter of experience, that where the stock of pine plants

is not extensive, certain and abundant crops of fruit cannot be expected. Instead, therefore, of a succession and fruiting-house of the old form, with two fires each, it would be better to have four pits with single fires. There might be two succession-pits of the form of fig. 2, or fig. 11, Plate CCXCII, and two fruiting-pits similar to fig. 5, or fig. 6. These would contain a much greater number of plants than two pine-stoves, would be little more expensive in erection, and, as the number of fires is the same, would not consume much more fuel.

Bottom Heat. As a substitute for the warmth absorbed by the earth, from the powerful rays of the sun in tropical countries, the pots of pine-plants are generally plunged in a bed of tanners' bark, decaying leaves, or other fermenting substances. Tanners' bark is most commonly used. Speechly and Nicol prefer leaves shed by hard-wood trees in autumn. Others form the under and greater part of the bed with stable-litter. Whatever substance is employed, it should not be put into the bed until the first violent heat of fermentation has passed; or if circumstances impose a necessity of using it in a recent state, it should be largely mixed with old materials of the same kind. A layer of exhausted bark, ten or twelve inches thick, should be laid on the surface of the bed. In pine stoves, the curb of the bark-pit is usually elevated about three feet above the common level of the house, and has a gentle slope towards the front; in pine-pits, however, it approaches more closely to the glass. The bark is commonly five or six feet deep; but it may be questioned whether this depth is not excessive and unnecessary. A bed about three and a half feet deep would probably be more convenient, and afford a heat sufficient both in intensity and duration for any useful purpose.

We have already shewn how a system of tubes transmitting steam or hot-water may be made available to the production of bottom heat. There is another method worthy of at least a cursory notice, which is all that we can afford it. Its invention is due to Mr M'Murtrie, and the apparatus is described at length in the *Lond. Hort. Trans.* vol. vi. His contrivance will be understood by an inspection of his pine-pit, of which a section and plan are given in Plate CCXCII, figs. 8 and 9. A shallow bark bed, about two feet deep, rests upon an arched chamber of single brick. 1 is the fire-place; 2 a fire-flue running along the whole length of the chamber 4, which is also kept full of steam by means of the boiler and pipe 3; the apertures 5 admit steam and heat into the air of the pit, and of these there is one, both in back and front, under each sash, capable of being stopped at pleasure. The waste-pipe 6 allows the steam to escape, when the apertures marked 5 are shut. By the return of the flue 2, the atmosphere of the house is heated; and by the joint action of the inclosed part of the flue, and of the steam in the chamber, an abundant and salubrious bottom heat is easily maintained.

The proper management of bottom heat is a matter of some difficulty, and in this there have been more failures than in any other part of the pine-apple culture. The heat arising from violent fermentation, is greater than the tender roots can bear, and if all watchfulness be not employed, the labour of many months may be blasted in a single day. Mr Knight has discarded bottom heat altogether; but he has not succeeded in convincing others that pine-apples can be grown equally well without it. Bottom heat is, however, almost universally kept too high. Perhaps the upper limit of its temperature may be fixed at blood-heat, or at most 100°, while the under or winter limit may be brought down to 70° or 75°. Gardeners are accustomed to judge of the heat of the bed, by means of long sticks pushed into it; these are occasionally drawn out and felt by the hand, and a rough guess at the temperature is thus obtained. A far preferable method is to employ a slow thermometer slightly cased in wire.

Forcing
Garden.

Soil. Various nice and minute directions have been given respecting composts for ananas plants. Any compost, however, will be found suitable, which is at once rich, fresh, and simple. Perhaps a mixture of the top-spit, including the turf, of an old pasture, and about a half of good, well-rotted dung, combines these qualities as completely as possible. When it is necessary to lighten these materials, a compost of decayed leaves, and a little sand, may be added. It is of importance that the compost, whatever it may be, should be prepared a considerable time beforehand, and frequently turned over. It should be broken with the spade, but not screened; and when used, it should not be too moist. Pine-apple plants are found to shew fruit more readily in a rich light soil, than in strong loam, but do not produce large fruit. In selecting his compost, the cultivator must make his selection between these advantages. At all events the soil must be rich; it can scarcely be too rich. "The pine," says an intelligent writer in the *Gardener's Magazine*, vol. ix. "is a gross feeder, and will thrive in vegetable manure, however rich and fresh." Liquid manures have been applied; but these, however useful when recent, prove deleterious in a fermented state.

Propagation. The ananas is propagated by planting the crowns or tufts which grow on the fruit, or the suckers which appear at the base of the stem. These, when removed from the fruit or the stem, are laid aside for a few days, till the scar at the place of separation have dried or healed, a precaution to prevent their rotting; after which they are potted immediately. Sometimes late in the season, they are merely thrust into exhausted tan, without pots, where they remain till the following spring. In general the offsets should be as large as possible. Speechly did not break off his suckers before they were twelve or fourteen inches long, and he reserved only the largest crowns. These large suckers and crowns grow with greater rapidity, and come sooner into fruit, than those of smaller size: and in this, in truth, consists the principal secret of what has been called the short method of culture, by which fruit is obtained in a much briefer space of time than usual. The soil employed in propagation is rather lighter than that afterwards applied. The pots may be from three to six inches in diameter, and, to promote draining, should contain at bottom a layer of shivers or clean gravel. For some time the plants are shaded from the rays of the sun, and in about eight or ten days they receive a little water. As already stated, the older and more common routine of pine-apple culture embraces a period of three years; but recent improvements have reduced these to two years, or even to eighteen months. This has given rise to two modes of preparatory management, which we shall notice separately, premising that the treatment in the fruiting-house is the same in both.

Triennial Course. The plants which were potted in autumn, are kept in the nursing-pit during winter, with a mild temperature, a slight bottom heat, and a sparing allowance of water. About the beginning of April they are transferred into larger pots, and are commonly shifted into hot-beds or pits heated with stable dung, in which they are found to prosper exceedingly. Air is given every day, and is copiously admitted, as soon as the sun's rays have acquired considerable power. During summer the average morning temperature may be from 70° to 75° Fahrenheit, but in sunshine it may be allowed to rise to 85°, 90°, or even more. The heat is maintained by adding occasional linings of stable litter, and, when it is exhausted, the plants are transferred into other beds or pits, more recently made up, and in which fermentation is going on. In flued nursing-pits the management is precisely the same. The bottom heat is aided by fresh additions of tan. As nothing is to be dreaded from damp where there is a command of fire-heat, more copious wa-

terings may be given, and the plants may be syringed over head, or slightly steamed, by throwing water on the flues. It is not very common to shift the plants in the nursery during summer; but it is a good rule to have recourse to that operation as often as the roots begin to mat on the sides of the pot. Before the end of autumn, the young plants become vigorous. The lower part of the stalk should then be thick, the centre or funnel formed by the leaves should be upright, open, and rather short, and the leaves themselves not long nor very numerous, but broad, stiff, succulent, and free from contortion and deformity. Towards the end of autumn, the plants are taken into the succession-pit, which, in fact, is only a nursing-pit on a large scale. The temperature for winter should be about 60°. About the middle of March, they are shifted into pots nine or ten inches in diameter. At this period, it is not uncommon, in compliance with the recommendation of Abercrombie and the other older authorities, to cut away the whole of the roots, and to re-pot the plant somewhat in the capacity of a sucker. The reasons alleged for this extraordinary practice are, that the pine-apple plant is continually pushing out roots at the surface, while those below are rapidly dying; that the soil, in the course of three years, becomes completely exhausted; and lastly, that this treatment prevents premature starting in the course of the second year. This last reason is very questionable, and it assumes that ananas plants *must* be treated for three years before they produce fruit. There is some force in the other reasons, but they do not prove the absolute necessity of the practice. Roots may be pruned without being removed altogether. The earth may be shaken almost entirely away, and replaced by fresh compost, at the expense of only a few fibres. Again, if, at every shifting, a small portion of the earth be taken from below, as florists treat auriculas in pots, at the end of two years scarcely any portion of the original soil will remain. The grand objection to the operation is, the great and unnecessary check to vegetation, and the consequent stuntedness of habit, which, in succulent plants of such an age, is scarcely remediable. That it is possible to grow ananas without cutting away the roots, is consistent with our own observation, and is borne out by the testimony and practice of Griffin, Appleby, and other distinguished cultivators. When the roots are removed, the plants must be shaded for some time, and be watered sparingly, till they begin to grow freely. The summer temperature should be comparatively warm, the range being from 65° to 70° of fire-heat, or during night, and from 70° to 85° solar heat. Abundance of air is admitted, and the plants are set widely, that they may have room to swell below, and become stout and bushy.

Biennial Course. The method of culture which we have denominated the biennial course, was first brought into notice by Abercrombie, and more recently has been strenuously recommended by Baldwin. Its chief feature is the acceleration of the growth of the plants by the application of higher temperatures than it was formerly supposed they could bear. They are, in fact, made to attain the growth of two summers in one.

About the beginning of March, the most forward of the plants potted over winter, or the suckers kept in tan, are taken out, the earth or tan shaken away, and the roots shortened. They are then put into pots about five inches in diameter, which are plunged into frames or pits heated with tan or stable litter. They are shaded as usual, and after they begin to grow, receive moderate waterings. When the roots appear around the balls of soil, which will be about the middle of June, the plants are again shifted into larger pots, from six to seven inches in diameter, and, if the heat be declining, are removed into other pits or beds. In the beginning of August they are transferred into larger pots, in which, unless they are intended for

Forcing
Garden.

Forcing
Garden.

early spring forcing, they stand during the winter; and in February they are finally shifted into pots twelve or fourteen inches in diameter. For spring forcing, the last shifting takes place in October, and the pots may be two inches narrower. At every shifting the ball of earth is preserved entire. From March the temperature is gradually increased; little air is admitted, even in strong sunshine, and a lively bottom heat is kept up by means of repeated linings. When there is danger of burning the roots, the pots are partially drawn up, or even set upon the surface of the tan. The following table will give an idea of the temperature (Fahrenheit's thermometer) and its progressive increase:

	During Night.	During Day.
March.....	60° to 70°	70° to 80°
April.....	70 — 75	80 — 85
May.....	75 — 80	90 — 100
June.....	80 — 85	100 — 120

After the beginning of July, the heat is allowed to decline by degrees, until it arrive at the winter temperature of 60°. It is to be understood, however, that these temperatures regard only stable dung or tan heat; and that too applied to crowns, as the larger suckers seldom require more than 100°. Where fire-heat is used, and it should always be through the medium of hot-water, the nocturnal temperature should only approach towards 80°; and there should be some expedient for the *slow* immission of steam into the atmosphere of the pit. During the whole summer care is employed to prevent the plants from being *drawn*, and for this purpose they are allowed much space, and are placed as near the glass as possible. In August and September abundance of air, and more copious supplies of water, are given. In winter the chief care is to preserve the roots from damping off, and for this reason, though it is not the common practice, we should prefer winter pits having at least the command of fire-heat.

This mode of *driving*, as it has been significantly called, is applicable only to the varieties called the Queen, and Ripley's New Queen. The large growing sorts require a longer period. For this reason it is desirable that both courses of culture should be carried on at one time. The large varieties might be consigned to the triennial course, while the vacancies in either might be made up from the other. That this is practicable, at least in gardens where there are two fruiting houses, may be seen from the tabular compendium of culture given below.

Fruiting-House.—About the beginning of August, the plants, now two years old, are shifted for the last time. The pots are from twelve to fourteen inches in diameter, and the balls are preserved entire. About eight or ten days previously, the bark-pit of the fruiting-house has been cleared out, the old tan screened, if necessary, and fresh material supplied. The pots are then plunged into the bark as deeply as can be done with safety, and the plants are so treated as to keep them in a growing state during the whole of autumn. In winter, the nocturnal temperature is kept at 60°; but towards the end of January it is gradually raised to 70°. This rise, however, should follow, and not precede or be a cause of, the vernal growth of the plants. About the middle of February, the second fruiting-house may be prepared, for the reception of the plants in the biennial succession pit. These are existing in a mild temperature, and start during the general progress of the season.

That period at which pine-apple plants first shew their fruit-stalks, or, as it is technically termed, *start*, is the most critical in their whole culture. It is generally desirable that this should happen at a certain age, and at a particular season; but these are circumstances over which the cultivator can scarcely be said to have a direct control,

and accordingly, while the most successful can hardly deem themselves beyond the reach of failure, the less skilful are almost sure to err. We are not aware that the *rationale* of starting has been investigated on the principles of vegetable physiology; and it is certain that the most absurd practices have been resorted to, in order to force the plants into fruit. We pretend not to give a theory: but a few practical remarks may be of advantage. It is evident, then, that the plant must be of a certain age, or at least of a certain magnitude, before it will start freely or to good purpose. Suckers of the first year are wholly taken up with the production of roots and foliage; and if any of them happen to start, they exhibit little more than a tuft of leaves where the fruit should be. In the second year a Queen pine is capable of producing a perfect fruit; and in the third year the New Providence and other large varieties arrive at puberty. The solid part of the stem is then observed to have increased in bulk, and to have ascended considerably above the soil. It is of more practical importance, however, to remark, that the fruit-stalks do not appear until the pot is filled with roots. Apparent exceptions there may be to this principle, but in every case where it does not hold good, the plant will be found to be diseased, or the roots to have been violently destroyed. The grower should therefore take care that the roots shall have nearly occupied all the new soil before the end of autumn, and that in the course of the winter the tender fibres be not exsiccated by drought, or rotted by excessive moisture. Again, it is probable that at starting there is a peculiar check in the growth of the plant, which causes it to divert the sap from the formation of leaves, and, like most other vegetables in straitened circumstances, to provide the means of reproduction, by throwing out flower-buds. This diversion of the sap is influenced by the quantity of vigorous fibres, for it is observed that when, from some accident, plants not well furnished in this respect, do shew fruit, they bestow the greater part of the sap upon the leaves. Further, it is not a mere suspension of vegetation, otherwise fruit would be produced by every plant which has had the roots cut from it in the manner noticed above. Lastly, it is probable that the proper check consists in a transition from growth, however slight, to a temporary suspension of vegetation, which again is followed by a copious flow of the sap, circumstances which, as might be easily shewn, occur both in the winter and summer starting. If these imperfect observations be correct, it follows that starting is a natural process, requiring certain conditions in the state of the plant, and therefore not to be forced by violent treatment, or any sudden changes in temperature and watering.

After the plants have shewn fruit, they are never shifted; but the surface soil may be removed, and replaced by a little fresh and rich compost. Water is supplied from time to time as necessity requires; but it is impossible to give any definite rule on this subject. The observant gardener will soon, from experience, discover the proper measure. Water should never be given in a colder state than the average temperature of the house; when, therefore, there is no tank within the house, the watering-pots should be filled, and left in the house for some time before the water be applied. Fire-heat is kept up either continuously or at intervals, during the greater part of the season. It should always be moderate, never exceeding, by itself, 70°. During sunshine, the temperature may range from 70° to 100°. The greater proportion there is of the latter the better. Whilst the fruit is swelling, care must be taken to carry on the growth of the plant with equability and moderation. Violent checks are pernicious: they debilitate the stalk, and cause a stringiness in the fruit. As the fruit approaches maturity, water is gradually withheld, lest the flavour should be injured. Pine-apples should be cut a short time before they attain complete maturity. The

Forcing
Garden.

Forcing Garden. larger varieties will keep only a day or two; the smaller varieties a week or more.

The following tabular compendium is from Abercrombie, altered, however, in some of its details, to suit the idea of two crops a-year. To execute this plan, two fruiting-houses or pits, and one succession-pit, would be required, together with a variety of hot-beds, or pits for the nursing department. It is necessary to premise, that crowns and suckers are usually potted soon after they are taken off, and that August 15. may be considered the date at which the whole operations of potting should be finished. When there is only a biennial course, it commences from about February 14.

COMPENDIUM OF THE CULTURE OF ANANAS.

TRIENNIAL COURSE.	BIENNIAL COURSE.
<p><i>Nursing Pit.</i></p> <p>1833. Aug. 15. Crowns and suckers of the New Providence and other large varieties planted: also small crowns and suckers of the Queen pine.</p> <p>1834. Feb. 14. Small off-sets of the Queen pine dibbled into the tan. April 1. The above potted, or re-potted; the balls of earth preserved entire. July { The intermediate shifting: time determined by expediency. Aug. {</p>	<p><i>Nursing Pit.</i></p> <p>1833. Aug. 15. Large crowns and suckers of the Queen pine planted.</p> <p>1834. Feb. 14. Large off-sets of the Queen pine dibbled into the tan. Mar. 15. The above potted, or re-potted; the earth or tan is shaken away, and the roots pruned: the pots transferred into hot-beds or pits. June 15. First intermediate shifting. Aug. 1. Second intermediate shifting.</p>
<p><i>Succession Pit.</i></p> <p>1835. Mar. 1. The plants from the nursing house are shifted into larger pots: the greater part of the earth is renewed, and the roots pruned. June 1. Second intermediate shifting.</p>	<p><i>Succession Pit.</i></p> <p>1834. Oct. 1. Plants introduced from the nursing pit; but not shifted unless intended for early spring forcing.</p>
<p><i>Fruiting House.</i></p> <p>1835. Aug. 15. Between this period and September 15, the plants, after having been shifted into full-sized pots, are introduced from the succession-pit.</p> <p>1836. March. The surface of the pots are top-dressed.</p> <p>1836. June { Fruit ripens, and the course concludes. Aug. {</p>	<p><i>Fruiting House.</i></p> <p>1835. Feb. 15. Plants shifted for the last time, and introduced from the succession-pit.</p> <p>1835. Sept. { Fruit ripens, and the course concludes. Dec. {</p>

The MELONRY—a department deriving its name from the melon, the principal plant cultivated in it—is an im-

portant appendage of the forcing garden. After noticing some of the most necessary apparatus employed in it, we shall treat of the melon, cucumber, &c., and their culture respectively.

The common hot-bed frame is most usually employed, and is so well known, as scarcely to require description. It is a rectangular box, with sliding sashes, which are single, in pairs, or in threes. The length of the sash is five or six feet, and its breadth about three feet and a half. The back of the frame is about double the height of the front, and the slope is set towards the south. When used, it is placed on a bed of fermenting stable litter, from three to six feet in thickness, according to the purpose to which it is to be applied, or the severity of the season.

The Alderston Melon Pit, of which fig. 6, Plate CCXCIII. is a section, is partly above and partly below ground. The front and back walls *a, a*, are of brick, supported on piers or stone pillars: *b, b*, are spaces inclosed within outer walls, and covered with boards to contain linings, which communicate, without any object intervening, with the fermenting substances in the interior of the pit. These spaces may be two feet wide: the interior pit should seldom be more than six feet in breadth. A principal quality of this structure is its neatness and cleanliness. *Caled. Hortic. Mem.* vol. ii. p. 217.

West's Melon and Cucumber Pit is also built of brick. It has, Plate CCXCIII. fig. 7, a chamber *a* to contain dung; *b* a square opening by which the dung is introduced; *c* rafters of wood or cast iron, sustaining the interior soil; *d, d*, openings to permit the ascent of steam. The walls are nine inches thick, and the pit may be seven feet wide inside measure. *Lond. Hort. Trans.* vol. iv. p. 220.

Atkinson's Melon Pit, Plate CCXCII. fig. 10, is a brick structure. The back wall *a* and the end walls are four inches thick, built in the pigeon-hole fashion, that is, with square interstices between the bricks. The front wall *b* is double: the interior portion is brick in bed, the exterior brick on edge, with piers under each rafter. The included space communicates with the inside of the bed *c*. The pit *d* is filled with fermenting litter or tanners' bark: *e, e*, are spaces for linings. This pit, according to the experience of the Horticultural Society of London, has been found "far superior to any other yet constructed." *Trans.* vol. vi. p. 373. The whole is sometimes formed of wood, or sometimes only the part above ground.

Besides these, pits constructed on the principles exhibited in Plate CCXCII. figs. 2 and 11, may also be employed.

The extent of the melonry must depend upon the size of the garden, and the amount of the demand. Where there is a large family, and especially where pine-apples are cultivated (to the forwarding of which some portion of the melonry may frequently be auxiliary), sixty or seventy sashes may be considered as a moderate complement.

The MELON (*Cucumis Melo*) has long been cultivated in Britain, but the period of its introduction and its native country are not well ascertained. The plant is a tender annual, requiring considerable care and skill to rear it in perfection; but it repays the labours of the horticulturist by affording a large, and to most persons a highly palatable fruit. The varieties are numerous, and, from their tendency to sport or vary, are rather fugitive in their duration. Many of the old favourites have disappeared, and those at present in vogue will doubtless take the same course, or will at least assume new forms, while they retain their old names. In these circumstances, it is deemed unnecessary to enter into minute description, or to do more than give a list of the sorts at present deserving of cultivation. It may be premised, that they all belong to the species usually called the Musk-Melon. The Water melon

Forcing Garden. (*Cucurbita Citrullus*) appertains to another genus, and is seldom reared in this country except as a curiosity.

Early Cantaloupe,
Scarlet-fleshed Cantaloupe,
Early Polignac,
Smooth Scarlet-fleshed,
Golden Rock,
Silver Rock,
Cephalonian,

Des Carmes,
Green-fleshed Egyptian.
Green-fleshed Italian,
Daree Persian,
Green Hoosainee Persian,
Keiseng Persian,
Sweet Melon of Ispahan.

It is important that none but such seeds as have been procured from approved genuine specimens of the several sorts should be sown. In general, the fresher or more recent that garden seeds are, the better; but the case is different with the melon. Here it is desirable that the seeds should have been kept in a dry state for some years: it is found that plants produced from recent seeds push too vigorously, sending their shoots to a great length before they shew a single fruit; while those from old seeds are less luxuriant in growth, but more fruitful.

The melon succeeds best in a strong, rich soil. A compost, formed of two-thirds of rotted turf, and one-third of old cow-dung, will be found very suitable. This should be prepared for a year or two before it be employed in the melon frame.

There are generally several, perhaps three, successive crops of melons raised in large gardens. It is seldom expedient to sow before the middle or end of January, and sometimes it is soon enough a month later. A seed-bed capable of receiving a frame with a single sash is previously prepared. This bed, composed of fermenting stable litter, should be of considerable thickness, perhaps about five feet. Immediately upon its formation, the frame and sash are placed on it, and they are kept close till the heat begin to rise, when the hot vapour is permitted to escape. Three or four days after the bed has been formed, it is covered over to the depth of three inches with earth prepared beforehand. Rich, light, dry earth, is best adapted for this purpose; and that it may be dry enough, it is proper to use such as may have been protected from rain during winter. A few small flower-pots are filled with the same earth, and kept in the hot-bed, that the soil in them may acquire a suitable temperature. The seeds are then sown in the flower-pots, and covered half an inch deep; after which the pots are plunged a little way into the earth of the bed.

When hot vapour rises copiously, fresh air is admitted by raising the sash a little. The frame is covered every evening by sunset with mats, and is again exposed in the morning about nine o'clock, sooner or later according to the state of the weather. A single mat is sufficient at first, as the heat in the bed is generally strong. In two or three days after the seed has been sown, the plants appear, when the glasses are raised a little, to admit fresh air, and permit the escape of vapour. Unless this be done, the plants are apt either to damp off or become yellow and sickly. To guard against the casualties of the season, and the chance of miscarriage, it is proper to make two other sowings at short intervals, so that, if any accident befall the first plants, the others may supply their place. Two or three days after the plants have come up, they are transplanted into other small pots, only two or three being put in each pot. If the earth be very dry, it is now moistened with a little tepid water. The pots are then plunged into the earth, and much care and watchfulness are employed to prevent the roots from being scorched. When the transplanted seedlings begin to grow, they are watered occasionally in the warmest part of the day. As the heat of the hot-bed declines, it is supported by linings, applied from time to time, around its outer surface. The lining should not exceed fifteen or eighteen inches in thickness, and should rise above the level of the bed, upon the sides of the frame.

About a month after the seeds have been sown, hot-beds

VOL. XI.

or pits are prepared for the reception of the young plants. For the first crop, it is generally found that hot-beds are preferable. These are formed about three feet and a half thick, and of such extent as to receive several frames of two or three lights each. The same precautions with respect to vapour, and other matters connected with the fermentation, are observed as in the seed-bed. When the violence of the heat has begun to subside, the surface of the bed is covered, to the depth of two inches, with dry, light earth; and under the centre of each sash, a conical heap of the same soil is raised to the height of ten inches. By the following day, the earth generally acquires a sufficient warmth, and the bed is ready for the reception of the plants. The pots containing the young plants should be well watered the day previous to their being *ridged out*, to make the ball adhere together, and come out of the pot entire. After the tops of the hillocks of earth have been flattened a little, in the centre of each a hole is made capable of containing one of the balls of earth which is to be turned out of the pots. Some of the pots containing the strongest plants are selected, and the young melon-plants are plunged out, with balls entire, into the ridges or hillocks already mentioned. After this operation has been performed, they receive a gentle watering. The sashes are replaced, and for some time, unless the vapour be strong, little air is given. Care is taken to prevent the tender fibres from being scorched. When the roots begin to show themselves through the surface of the hillocks, a quantity of fresh earth is applied all around them, and in a week or fortnight after, the whole surface of the bed is covered nearly as high as the top of the hills.

When the plants have got two or three rough leaves, the top of the stalklet, which now begins to elongate, is pinched off, and from the axillæ of the leaves lateral shoots are soon shot forth. These are fastened down with pegs, and are so disposed as regularly to cover the surface of the bed. These laterals will sometimes show flowers at the second or third joints; if they do not, they are topped in their turn, and afford laterals, which seldom fail to be fruitful. As these runners advance, they are trained along the surface, and all weak useless shoots are removed. This should be done frequently, as it is found injurious to cut out a great quantity of shoots and foliage at one time. No plant, as has been shown by Mr Knight (*Hortic. Trans.* vol. i.), is more beholden to its leaves, both as respects health and flavour of fruit, than the melon.

It is seldom proper to leave more than one fruit on each shoot, and in the large kinds perhaps not more than four or five fruit should be left on one plant. When the fruit begins to swell, a slate or piece of tile is laid under each, to separate it from the damp soil of the bed. During the process of growth, the fruit is usually turned about once a-week, to expose all sides to the rays of the sun; but, in turning, care must be taken not to twist the foot-stalk, as this would destroy the fruit altogether. At this period water is given with moderation, and abundance of air is admitted. The fruit should be gathered before it be quite ripe. Its approaching maturity is known by the appearance of a number of cracks near the footstalk, and by the emission of a rich odour. It is cut in the morning, and is kept in a cool place till served up; if this precaution be not attended to, there will be a considerable deficiency of flavour.

The average heat required for the successful growth of melons is about 70° Fahrenheit. In the common hot-bed, this is maintained by defending the bed during the night, and by applying linings from time to time. In pits heated by hot-water circulation, this is easily effected at any season; and were it not that the included air is apt to become too dry, especially in winter, when much heat is required, such pits would doubtless supersede the hot-bed frame altogether. At present the old methods, partly it may be from custom,

4 P

Forcing
Garden.

are still principally employed. It is unnecessary to give minute directions respecting the management of melons in pits; as, in these, the mode of procedure recommended for hot-beds, with some trifling variations, will also prove successful.

The CUCUMBER (*Cucumis sativus*), like the melon, is a tender annual, requiring the assistance of artificial heat. It properly belongs to the class of culinary vegetables, being used in salads and pickles, and has long been cultivated in this country. Its culture, however, requires the closest attention of the gardener. The sorts commonly grown are,

The Early Frame,
Long Prickly,
Short Prickly,

Green Turkey,
White Turkey,
White Spined.

Of these, the long and short prickly are well suited for ridges in the open air.

The culture of early cucumbers so much resembles that of the melon, that it would be useless repetition to enter into minute details. The cucumber, indeed, is somewhat the hardier, and therefore in summer requires less heat; but in every other respect the management of the plants is precisely the same. The first crop of cucumbers is generally sown in the end of December, or the beginning of January; a second in March, and a third in June. In summer, cucumber plants, after they have been fairly established, require scarcely any other attention than to thin them out occasionally, and to supply them with water.

Cucumbers, particularly the prickly sorts, are often raised in the warmer months under hand glasses. A cavity is made in a border in front of a wall or other warm place, and is filled with hot dung. This dung is covered with earth, and two or three plants are put into it, and sheltered with a hand-glass. They are watered and dressed from time to time; and by this means a sufficient supply of small cucumbers, or *girkens*, is obtained for pickling.

In the southern counties of England, pickling cucumbers are easily raised without any artificial heat, being sown in drills in the open ground. The earth is made fine and level, and shallow circular hollows are formed with the hand, a foot wide, and half an inch deep in the middle. The distance between each hollow is three feet and a half, and the distance between the rows five or six feet. Eight or ten seeds are deposited in each cavity. This is done in the beginning of June. When the plants appear, they are thinned out to three or four, the weakest or least healthy being rejected. They are watered occasionally, according to the state of the weather. The cucumbers are gathered chiefly from the middle to the end of August. Vast quantities of these open ground girkens are taken to the London market. The village of Sandy, in Bedfordshire, has been known to furnish 10,000 bushels of drilled cucumbers in one week.

GOURDS, species or varieties of the species of the genus *Cucurbita*, may be grown like drilled cucumbers, or trained against walls or on pales. Though occasionally used as esculents, they are regarded chiefly as curiosities. The *Succada*, or vegetable marrow, is a very useful sort, and in request for the table, being eaten stewed with sauce or mashed like turnips. It may be raised in an exhausted melon-frame or pit; or it may be sown under a hand-glass, and afterwards transplanted into a good aspect, and trained against a wall or trellis.

The MUSHROOM (*Agaricus campestris*), though not properly an inmate of the melonry, may appropriately enough, from the nature of its culture, be taken along with the plants grown in this department of the garden. It

is a well-known fungus, a general favourite, and esteemed a delicacy during winter and the spring months.

Mushrooms used to be grown in ridges or prepared beds, in sheds, or covered with litter in the open air. Of late years, the Russian form of the mushroom-house has been introduced into Britain by Mr Isaac Oldacre, and is now in very general use. Its arrangement may be seen by inspecting the back part of the vinery fig. 3, Plate CCXCI. Two tiers of boxes, three in each tier, and supported by a strong frame-work, are constructed round the whole house, with the exception of the spaces occupied by a door and two windows. The boxes may be from two feet and a half to three feet and a half broad, and about a foot deep. The house is supposed to be heated by hot-water circulation. In the centre *d* is a narrow pit, by which the house may be worked by means of fermenting litter instead of the hot-water, or in which rhubarb stalks, &c. may be forced. The windows are furnished with shutters to regulate the admission of light, and are moveable, to permit the ingress of air.

Mushrooms are propagated from what is technically called *spawn*, which is a collection of vegetable threads pervading dried dung or other similar substance, having the smell of mushrooms, and apparently the fungus in its undeveloped state. It may be obtained from old pastures, decayed mushroom beds, or purchased from nurserymen in the form of *bricks* charged with spawn. When once obtained, it may, like leaven, be indefinitely preserved. If not otherwise procured, it may be produced, or in a manner generated, by placing quantities of horse-dung and rich earth in alternate layers, and covering the whole with straw, to exclude the rain and air. Mushroom spawn commonly appears in the heap in about two months after the dung and earth have been laid together. The droppings of stall-fed horses, or of such as have been kept on dry food, are found preferable for this purpose.

The old method of growing mushrooms has been referred to above; and, as it has some conveniences, particularly for those who have not extensive apparatus, it may be proper to give some account of it. The beds are formed of horse-droppings which have been laid out for some time without having fermented, and may be made two or three feet broad, and of any length. A layer of dung about eight or ten inches thick is first deposited, and covered with light dryish earth to the depth of two or three inches; then another layer of dung of the same thickness, covered like the former; and lastly a third layer, with its covering. The whole should grow narrower as it advances in height. When the bed is finished, it is covered with straw to protect it from rain, and from the parching influences of the sun and wind. In ten days the bed will be ready for planting or spawning. Pieces of spawn bricks are inserted in the sloping sides of the bed, about four or five inches asunder. A layer of fine earth is then placed over the bed, and the whole is covered with a thick coat of straw. When the weather is temperate, mushrooms will appear in about a month after the bed has been made; but at other times, a much longer period may elapse. The principal things to be attended to are to preserve a moderate state of moisture, and a proper degree of warmth; and the treatment at different seasons must vary accordingly.

Of the many other methods of raising mushrooms, Mr Oldacre's, already referred to, may deserve to be particularised. In forming the compost, he procures fresh short dung from a stable, or from the path of a horse-mill. To this is added about a fifth part of sheep-droppings, or of the cleanings of a cowhouse, or of a mixture of both. The whole ingredients are thoroughly mixed and incorporated. A stratum of the prepared mixture, about three inches thick, being deposited in the boxes already described, is beat together with a flat wooden mallet. Another layer is added, and beat as before; and this is repeated till the beds

Forcing
Garden.

Kitchen Garden. be rather more than half a foot thick, and very compact. The boxes are then placed in the mushroom-house, or any out-house where a slightly increased temperature can be commanded. A degree of fermentation generally takes place; but if heat be not soon perceptible, another layer must still be added, till sufficient action be excited. When the beds are milk-warm, or between 80° and 90° Fahrenheit, some holes are dibbled in the mass to receive the spawn. The holes are left open for some time; and when the heat is on the decline, but before it be quite gone, a piece of spawn-brick is thrust into each opening, and the holes are closed with a little compost. A week afterwards the boxes are covered with a smooth coating, an inch and half thick, of rich mould mixed with about a fifth part of horse-droppings. The apartment is now kept as nearly and equably at 55° Fahrenheit as circumstances will allow. When the boxes become dry, a little soft water may be sprinkled over them, but sparingly and with circumspection. The more that free air can be admitted, the flavour of the mushrooms is the better; but the exclusion of frost is indispensable. If a number of boxes have been prepared at first, a few only at a time may be covered with mould and brought into bearing, the rest being covered and cropped in succession, as mushrooms may be in demand.

Mr Edward Callow, in a tract on the artificial growth of mushrooms, describes a method in which the pits are wrought by means of dung heat. His structure somewhat resembles Atkinson's melon-pit, only the roof is covered with thatch, and a suite of air-flues is formed within the interior of the pit, with branches crossing the principal bed which occupies the floor. Linings of fermenting litter are applied on the exterior of the house at the back and front. The atmosphere of the pit, in the earlier stage, is kept at 55° to 65° Fahrenheit, and when the bed is in full bearing, about 70°. The other details of this method scarcely differ from those of Mr Oldacre's.

KITCHEN GARDEN.

In this department those plants are cultivated which, after being subjected to various culinary processes, are used as articles of food. They may be enumerated in the order of their importance, each, for the sake of precision, being accompanied by its botanical name.

Cabbage Tribe.

The *Brassica oleracea*, LIN. is a plant indigenous to our rocky shores; but no one, seeing it waving in its native habitat, could possibly anticipate that it would ever appear in our gardens, disguised as the ponderous drumhead or sugar-loaf cabbage, or on our tables as the delicate cauliflower and broccoli. The cultivated varieties are numerous; but the following are the most important.

Common White CABBAGE. The economical uses of this vegetable are well known. Its principal subvarieties are the following:

Small Early Dwarf,	East Ham,
Early May,	Large Sugar-loaf,
Dwarf Vanack,	Drumhead,
Early York,	Scotch,
Chinese,	Tronchuda.

The first three are adapted for early crops; the next three for use in the end of summer and autumn, and the others for winter. The leaf-stalks of the Tronchuda are used like sea-cale.

The Cabbage is propagated from seed, which may be sown in beds four feet wide, and covered over with a thin layer of earth. The proper seasons for this operation are the middle of August, the beginning of March, and Mid-

summer. By observing these times, and employing different sorts, the succession may be kept up through the year. For the early spring crops, the late sown plants are in October transferred from the seed-bed to some open and well manured ground, where they are arranged in rows two feet asunder. The principal supply may be put out in February, affording the larger sorts more width between the rows. The crops sown in spring are planted out in May and June. For subsequent culture, all that is necessary is, to keep the ground clear of weeds, and to draw up the soil about the stems. In some situations watering in summer is beneficial.

The cabbages grown late in autumn and in beginning of winter are denominated *Coleworts*, from a kindred vegetable no longer cultivated. The object is to have them with open or slightly closed hearts. Two sowings are made, in the middle of June and in July, and the seedlings, when they acquire sufficient strength, are planted out in lines, a foot or fifteen inches asunder, and eight or ten inches in the rows.

The Red Cabbage, of which the large or Dutch red is the common variety, is much used for pickling. It is sown along with the white varieties in August and in spring, and the culture is in every respect the same.

The Savoy. This variety, like the preceding, forms into a close head, but is distinguished by the wrinkling of its leaves. It is a very useful vegetable during the winter months. The principal subvarieties are the Early Green, the Yellow, and the Winter, of each of which there are various forms. The seed is sown in autumn and in the end of spring, and two plantings may take place, in April, and in June or July.

BRUSSELS SPROUTS. This vegetable is allied to the foregoing, but does not close or cabbage. From the axillæ of the stem-leaves proceed little rosettes or sprouts, which resemble savoy cabbages in miniature. The seed should be sown in spring, and the seedlings planted out before midsummer, during showery weather. In October the plants should have additional earth drawn to their roots, to firm them, and save them from being destroyed by frost. The earliest sprouts become fit for use in November, and they continue good, or even improving in quality, till the month of March following. Mr Van Mons of Brussels mentions (*London Hort. Mem.* vol. iii.), that by successive sowings the sprouts are there obtained for the greater part of the year. In spring, when the plants have a tendency to run to flower, their growth is checked by lifting them, and replanting them in a slanting direction, in a cool shady situation.

OPEN KALE. The principal subvarieties are:

German Greens, or Curlies,	Buda Kale,
Scotch Kale, or Green Borecole,	Jerusalem Kale,
Purple, or Brown Kale,	Woburn Kale.
Delaware Greens,	

Of these the three first are considered the most valuable, and are the sorts chiefly cultivated in this country. The seed is sown at various times from February to May, and the seedlings are planted out in moist weather during summer, in rows two feet asunder. The Buda Kale is sown in May, planted out in September, and being hardy, affords a supply in the following spring.

Of the **TURNIP-ROOTED CABBAGE**, or *Kohl-rübe*, there are two varieties, one swelling above ground, the other in it. There is nothing peculiar in the culture, unless that, in the case of the first mentioned, the earth should not be drawn so high as to cover the globular part of the stem, which is the part used. The seed may be sown in the beginning of June, and the seedlings transplanted in July; they are thus fit for use at the approach of winter.

CAULIFLOWER. This variety is cultivated for the sake of the flower-buds, which form a large dense cluster or head, and afford one of the most delicate products of the

Kitchen Garden.

Kitchen
Garden.

kitchen-garden. There are three subvarieties, the Early, the Late, and the Reddish-stalked; but these seem to present scarcely any well-marked distinction.

The sowing, for the first or spring crop, is made in the latter half of the month of August; and, in the neighbourhood of London, the growers adhere as nearly as possible to the 21st day. A second sowing takes place in February on a slight hot-bed, and a third in April or May.

The cauliflower being tender, the young plants require protection in winter. For this purpose they are sometimes pricked out in a warm situation at the foot of a wall with a southern exposure, where, in severe weather, they are also covered with hoops and mats. A better method is to plant them thickly in the ground under a common hot-bed frame, and to secure them from cold by coverings, and from damp, by giving air in mild weather. For a very early supply, it is useful to be at the pains of potting a few scores of plants; these are to be kept under glass during winter, and plunged out in spring, defending them with a hand-glass, and watering them when needful. Sometimes, as in market-gardens, patches of three or four plants are sheltered by hand-glasses throughout the winter in the open border. It is advantageous to prick out the spring-sown plants into some sheltered place, before they be finally transplanted and committed to the open ground in May. The later crop, the transplantation of which may take place at various times, is treated like early cabbages. Cauliflower succeeds best in a rich soil and a warm situation. After planting, all that is necessary is to hoe the ground, and draw up the soil about the roots.

It is found that this vegetable, being induced to form its large and crowded clusters of flower-buds in the autumn, may be kept in perfection over winter. Cauliflowers which have been planted out in July, will be nearly ready for use in October. Towards the end of that month, the most compact and best shaped are selected and lifted carefully with the spade, keeping a ball of earth attached to the roots. Some of the large outside leaves are removed, in order that the plants may occupy less room, and at the same time, any points of leaves that immediately overhang the flower are cut off. Where there are peach-houses or vineries the plants may be arranged in the borders of these, together, but without touching. Or they may be placed in the same manner in hot-bed frames: In mild dry weather the glass frames are drawn off, but they are kept close in rain; and in severe frost they are thickly covered with mats. In this way cauliflower may be kept in an excellent state for several months.

BROCCOLI has a close affinity to cauliflower, being, like it, of Italian origin, and differing chiefly in the greater hardiness of its constitution. The subvarieties are numerous, and exceedingly diversified. The following are those which are in most repute at present. The first five produce their buds in autumn, the others in spring:

Purple Cape,	Cream-coloured,
Green Cape,	Sulphur-coloured,
Grange's Early,	Spring White,
Early Purple,	Late Purple,
Early White,	Late Danish.

Of the autumnal sorts there should be two sowings, one in the middle of April, and one in the middle of May. As the plants acquire strength they are shifted into the open ground, where they are placed in lines two feet apart. The Cape varieties are of great excellence, being of a delicious flavour when dressed; but on account of the plants being apt to start into flower, their cultivation has in many places been neglected. With proper management, however, this tendency may be overruled. The first sowing may be made on any border of light soil, scattering the seed very sparingly. In about a month the plants may be transferred directly into a quarter consisting of sandy loam, well en-

riched with rotten dung. The greater part of the second crop should be planted in pots likewise directly from the seed-bed. These pots are to be sunk in the open ground till the heads be formed; and in the end of November they are to be placed under a glass frame, where very fine broccoli may be produced during the severest weather of winter. Mr Ronalds of Brentford recommends (*London Hort. Trans.* vol. iii.) that the Early White, which is also a very fine sort, should be sown on a hot-bed, and treated like the secondary crop of cauliflower.

The spring varieties are extremely valuable, as they come at a season when the finer vegetables are scarce. They are sown in the middle of March or the beginning of April, and afford a supply from March to May inclusive of the following year.

To obtain seed of the Brassica tribe, true specimens of the different varieties should be selected, in such a state of advancement as that they will flower as early as possible in spring. They should be planted in an open situation, and kept as far apart from other kinds of the same tribe as may be. As they are very liable to cross or hybridize, it is perhaps better, except in the case of some favourite variety, to procure supplies from a respectable seedsman, from whom they are almost uniformly to be had genuine, the extensive seed-growers being at great pains to prevent intermixture of crops.

Leguminous Plants.

Of the PEA (*Pisum sativum*), there are two principal varieties, the Field or gray hog pea, and the Garden Pea. The latter alone requires our attention here. Its chief subvarieties are:

Early Frame,	Knight's Tall Marrowfat,
Early Charlton,	Dwarf Marrowfat,
Bishop's Dwarf,	Prussian Blue,
Dwarf Marrowfat,	Prussian Green,
Tall Marrowfat,	Leadman's Dwarf,
Imperial,	Sugar.

The first three are suitable for early crops, and the others for successional supplies. In the sugar pea, of which there are two sorts, the tall and dwarf, the inner filmy lining of the pod is absent, and the young legumes are used like kidney-beans.

The first crop of pease is sown about the beginning of November, in front of a south wall; and these, after they have appeared above ground, are defended by spruce-fir branches, or other spray, throughout the winter. In January and February other sowings are made, and sometimes the seed is put into flower-pots and boxes, and the young plants afterwards plunged out in spring. From the end of February moderate sowings should be made twice a month till the middle of August, thus ensuring a supply of successive crops of delicate green pease. For the latest crops the early frame and the Charlton are the best. Pease are sown in rows from three to five feet asunder, according to the height which the different sorts are known usually to attain. As they grow up the earth is drawn up to the roots, and the stems are supported with stakes, a practice which, in a well kept garden, is always advisable, although it is said that the early varieties, when recumbent, arrive sooner at maturity.

The early crops come into use in May and June, and by repeated sowings, the supplies are prolonged to November. Pease grown late in autumn are subject to mildew, to obviate which, Mr Knight has proposed the following method. The ground is dug over in the usual way, and the spaces to be occupied by the future rows of pease are well soaked with water. The mould on each side is then collected, so as to form ridges seven or eight inches high, and these ridges are well watered. On these the

Kitchen
Garden.

Kitchen Garden. seed is sown in single rows. If dry weather at any time set in, water is supplied profusely once a-week. In this way the plants continue green and vigorous resisting mildew, and not yielding till subdued by frost.

Of the GARDEN-BEAN (*Faba vulgaris*), amongst many varieties may be mentioned:

The Early Mazagan,	Green Genoa,
Early Lisbon,	Windsor,
Dwarf Fan or Cluster,	Green Windsor,
Long Pod,	White-blossomed.

The Mazagan and Lisbon are sown in November, and are defended during winter in the same manner as early pease, but they are more difficult to preserve. The same sorts should be sown again in January and February. In March the Dwarf Cluster and Long-pod may be put in the ground for a general crop, and subsequently the Windsor and White-blossomed. The latter is a variety of considerable merit, and when the pods are taken at an early stage, they have little of the peculiar bean flavour, or only enough to render them pleasant. During the growth of the bean crop, all the culture that is necessary is, that the earth be drawn up about the roots. Topping the plants is usually practised, being found to promote the filling of the pods.

KIDNEY-BEAN. Under this general title are included the common kidney-bean (*Phaseolus vulgaris*, LIN.) of many varieties; and also the Scarlet Runner (*P. multiflorus*, WILLD.) Kidney-beans are the *haricots* of the French, who enumerate upwards of 200 varieties. The sorts usually cultivated in this country are,

Early Yellow,	White Canterbury,
Early Red Speckled,	Black Speckled,
Early Black,	Brown Speckled,
Early White,	Scarlet Runner,
White Battersea,	Dutch White.

The first four are the earliest; the others are more productive, and better fitted for a general crop. As the plant is of tropical origin, our climate is scarcely sufficient for the extensive cultivation of the ripe beans, which are the principal object in France and Italy. The immature legumes are chiefly used in this country.

It is seldom advantageous to sow kidney-beans in the open ground before the middle or end of April; after which period successive sowings may be made every fourteen days to the end of July. The plants are grown in rows two feet apart, and the earth is carefully drawn to the roots. Kidney-beans are well adapted for forcing, in hot-beds, or in hot-houses; the climate of the peach-house, when it can be obtained, being considered the best. The sowings may begin in January; they are made in pots, and a supply may be thus obtained in the months of March, April, and May. The dwarf speckled is commonly used in hot-houses, and the early white in hot-beds.

Esulent Roots.

The POTATO (*Solanum tuberosum*). This well-known plant is a native of the elevated regions of equatorial America. It was introduced into Europe about the middle of the 16th century, but remained little known or regarded till within the last hundred years: it is now so generally cultivated, as to have effected almost an economical revolution in this country. Most of the original British sorts were derived from Ireland. Its multitudinous varieties now set enumeration at defiance, and many are indeed appearing and disappearing every year. The culture of the late sorts properly belongs to the farm, and when the gardener has to take them under his care, he will find it best to adopt such as are common in the agriculture of the district. Of the early kinds, most of which are supposed to

have originated in Lancashire, the following may be esteemed the best:

Early Royal Dwarf,	Early Frame,
American Early,	Early Kidney,
Early Ash-leaved,	Walnut-leaved Kidney.

Kitchen Garden.

Potatoes are commonly propagated by dividing the tubers, leaving to each segment one or two eyes or buds. The sets are then planted by the aid of the dibble or spade, in rows at a distance varying from fifteen inches to two feet. It has been suggested by Mr Knight (*London Hort. Trans.* vol. vii.), and his views have been amply confirmed by experiment, that by planting whole tubers, and at greater distances, a larger produce will be obtained. Mr Knight proposed to leave four feet between the rows, a distance which, except with the larger varieties, was found to be too great. An experienced horticulturist in Scotland states, that by planting whole tubers, and by leaving in the case of dwarfs two feet, and in the tall varieties two feet and a half, between the rows, a return from one-third to one-half more was obtained than could be had from the old method. Of course a greater quantity of tubers are required for planting, but these bear no proportion to the great increase which results; and besides, early potatoes at the planting season being unfit for eating, there is little economy in sparing them.

The earliest crops should, if possible, be placed in a light soil and in a warm situation, and are planted about the middle of March. Sometimes the eyes of the tubers are made to spring or vegetate on a hot-bed, and the plants are put out as soon as the leaves can bear the open air. Perhaps it is better, as recommended by Mr Saul of Lancaster (*Gardener's Mag.* vol. ii.), to promote incipient vegetation in some warm place, as a house or greenhouse, by laying a woollen cloth or some other covering over them. When the sprouts are about two inches long, he plants them out towards the end of March, and thus procures young potatoes in seven or eight weeks. A secondary planting of tubers should be made before the middle of April. When the stems are a few inches above ground, the earth should be drawn to them; an operation, however, which, while it improves the crop, delays its maturity for two or three weeks. Mr Knight recommends removing the flowers as they appear, and states that by this means the produce is increased by a ton per acre. The fine early varieties, however, scarcely produce any flowers.

An important fact in the cultivation of the potato was observed about the year 1806, by the late Mr Thomas Dickson of Edinburgh, viz. that the most healthy and productive plants were to be obtained, by employing as seed-stock unripe tubers, or even by planting only the wet or least-ripened ends of long-shaped potatoes; and he proposed this as a preventive of the well-known disease called the *Curl*. This view has been confirmed by Mr Knight. An intelligent writer in the *Gardener's Magazine* (vol. ii. p. 171) states a method by which sprouting of the eyes is accelerated. He takes up the seed potatoes a considerable time before they are ripe, and exposes them for some weeks to the influence of a scorching sun. The resulting crop is at least a fortnight earlier; but it is not said how this practice affects the curl.

The forcing of early potatoes on hot-beds has long been practised; but it is attended with considerable trouble and expense. Small supplies of young waxy tubers are now often produced during winter, in boxes placed in a mushroom-house, or in a common cellar, if free from frost. In October, old potatoes are placed in layers, alternating with a mixture of tree leaves and light mould. Vegetation soon proceeds; and there being no opportunity for the unfolding of stems and leaves, the energies of the plants are expended in the production of young tubers. Before mid-

Kitchen
Garden.

winter these often attain the size and appearance of early potatoes ; but they are much inferior, being watery and of little flavour.

JERUSALEM ARTICHOKE (*Helianthus tuberosus*), or tuberous-rooted sunflower. This plant, which is a native of Brazil, derives its epithet *Jerusalem* from a corruption of the Italian *Girasole*, a sunflower, and *Artichoke* from the resemblance, in flavour, which its tubers bear to the floral receptacles or *bottoms* of the artichoke. It is propagated by means of its tubers in the manner of potatoes. In March they are planted out in rows three or four feet asunder, and in autumn the new tubers are fit for use. For the sake of convenience, it is advantageous to store them, though the roots are hardy enough to bear the winter frosts. Some, indeed, allow them to remain in the ground, and dig them up when required. In this way a sufficient number of sets are generally left in the ground, and the stalks are thinned into rows in summer ; but this is a slovenly mode of treatment, and seldom produces well-flavoured crops.

The **TURNIP** (*Brassica Rapa*), like the potato, has, to a great extent, migrated into the fields, and become the care of the husbandman more than of the gardener. The following are the most esteemed garden sorts :

Early White Dutch,	Early Yellow Maltese,
Early Stone,	Dutch Yellow,
Green-topped White,	Aberdeen Yellow,
Long White,	Long Yellow.

Besides these, the *Naret* of the French (*Brassica Napus v. esculenta*) is occasionally cultivated, and more frequently the *Swedish Turnip* (*Brassica campestris v. Napo-brassica*, L.), which is a most excellent winter sort, though it belongs more properly to the farm. For early crops, the white Dutch is the principal variety ; the other white sorts, and the beautiful yellow Maltese, are useful in summer and in the beginning of autumn. The yellow Dutch being capable of enduring any degree of frost, affords the best winter supplies.

Turnips succeed best in a rich, well-worked soil, of a light or medium quality. The first sowing is made about the end of March, in a warm situation ; and it is usual to put in additional sowings, once a fortnight or three weeks, till the end of August. The early crops are sown *broad-cast*, and the later in drills. After the plants have shewn a rough leaf or two, they are thinned out, being left at the distance of eight or ten inches in the drill ; and the ground is hoed and kept free from weeds. As turnips which have stood the winter throw up their seed-stalks early in spring, after which their roots become stringy, and are much deteriorated, it is useful to store the turnips in winter, keeping them in a close place, and covering them with straw.

The young plants, while in the seed-leaf, are often destroyed by a small beetle called the turnip-fly (*Haltica nemorum*). Many remedies have been proposed : it has been found beneficial to dust the rows with quicklime ; but perhaps the best precaution is to sow thick, and thus insure a sufficient supply both for the insect and the crop.

The **CARROT** (*Daucus Carota*) is one of our native Umbelliferæ, but has been much transformed by cultivation. The best varieties are the Early Horn and the Orange Carrot, the former for early, the latter for general cultivation. The carrot loves a light, deep, fresh soil, in which it may be at liberty to push down its long spindle-shaped roots. A few Early Horn carrots may be sown in February on a moderate hot-bed. In the beginning of March, the same sort may be sown in the open air. In April, the orange variety may follow as a general crop : it

succeeds best in drills. In many old gardens the early plants are liable to the attacks of a small grub, the larva of some insect ; it is therefore a useful precaution to sow a moderate crop of the Early Horn variety in July. After sowing, it is only necessary to thin the plants and keep them clear of weeds. The roots are stored in winter in the manner of turnips.

The **PARSNEP** (*Pastinaca sativa*) is now less cultivated than it was in Catholic times, when it was a favourite accompaniment to dried fish in Lent. To some its flavour is not agreeable ; but it is a very nutritious vegetable, and of easy digestion. Like the carrot, its root is long and tapering, differing chiefly in being of a whitish colour. Its culture is also very much the same.

RED BEET (*Beta vulgaris*) is a biennial plant, a native of the shores of the south of Europe. The boiled root is eaten cold, either by itself or as a salad : it is also often used as a pickle. The varieties are numerous, but the most common are the Long-rooted, the Short or Turnip-rooted, the Bassano, and the Green-topped. There is a fine French variety called Castelnau, from a town in Languedoc ; but as yet it is little known in this country.

Red beet prospers in a rich, deep soil, not recently manured, and which has been well pulverized by the spade. During April the seeds may be sown in drills, fifteen inches asunder, and the plants are afterwards to be thinned to eight inches from each other in the lines. In the northern parts of the island, the roots are stored in winter, care being taken not to break them or cut off the leaves too closely, as they bleed when injured.

SKIRRET (*Sium Sisarum*) is a native of China, now seldom seen in our gardens. Its tubers are used like parsneps. It is a perennial, and may be propagated by separating the roots in spring ; but it succeeds better by annual sowings, which may be made in April.

SCORZONERA (*Scorzonera Hispanica*) and **SALSIFY** (*Tragopogon porrifolius*) are generally associated together in gardens, and are now less cultivated than they deserve. The roots are used in soups, and sometimes as dressed side dishes. They are sown in lines, and treated like the crops of red beet or parsnep.

The **RADISH** (*Raphanus sativus*) is a native of China. There are two principal varieties, the spindle-rooted and the turnip-rooted radish ; and of these the subvarieties are numerous. The following may be mentioned :

Early Frame Scarlet,	White Turnip,
Short-topped Scarlet,	Yellow Turnip,
Scarlet Salmon,	White Spanish,
Long White,	Black Spanish.

The first two and the white turnip radish are best suited for early crops ; the scarlet salmon for summer, the yellow turnip for autumn, and the white and black Spanish for winter.

Some cultivators sow their earliest crop in November, in a warm situation, at the foot of a wall or in front of a pinery, and continue sowing once a-month, if weather permit, during winter. Others grow their first radishes under frames, aiding vegetation by a slight bottom heat. As the season advances, successional supplies are sown once a fortnight. From the middle of July to the middle of September, the turnip-radishes are sown from time to time ; and on the approach of frost they may be stored up in sand like carrots, and kept throughout winter.

OXALIS ROOTS (*Oxalis crenata*, JACQ. ; *O. arracacha*, G. DON) have of late years been cultivated for the table in

Kitchen
Garden.

this country. The plant produces tubers at the root, somewhat in the manner of the potato; but they are of small size, seldom exceeding that of a walnut. By cultivation, however, by manuring, laying down, earthing up, watering, and other helps known to horticulturists, considerable increase of size in the tubers may be effected. From the mode of culture adopted by the most intelligent gardeners, we conclude that a rich light soil is the most proper (although some cultivators have recommended a poor soil); that it is useful to forward the plants in a hot-bed, in the way practised with early pease, so as to have them ready to transplant by the middle or end of May; that in planting out, they should be inserted in a sloping position, so that a considerable portion of the stem may be covered by the soil; that earthing up, or drawing up additional soil to the stems in June and July is important; and that laying down the stems horizontally in August, and covering them slightly (to the depth perhaps of two inches) with mould, tends greatly to promote the productiveness. It should be observed that the tubers continue to swell in size till November, or till stopped by frost. It is believed that the largest tubers, having full eyes or buds, yield the strongest plants; and therefore a portion of the largest should always be reserved for seed-stock. Cut sets of these large tubers are, by some cultivators, preferred to whole tubers. The rest, from the size of a filbert to a walnut, go to the cook. We may remark, that till the plant become more common, the very smallest tubers should not be thrown away, but should be carefully preserved, for increasing the extent of the oxalis bed the following season. The mode of dressing for table is simple. The tubers, after being cleaned, are boiled for about ten minutes, or till they be slightly softened; and they are then served up with white sauce. Some persons merely put them into boiling water for a few minutes; then, pouring off the water, transfer them to a covered saucepan; and place the pan upon hot cinders, drawing some of these near to the lid: in this way the tubers are rendered more dry or mealy. They are of excellent quality and pleasant flavour; somewhat resembling a new potato, with the additional zest of a nut or kernel. The oxalis comes from the same country that afforded us the invaluable potato, and has been extolled as likely to rival it; but this it will never do: a dish of oxalis will form an agreeable variety and adjunct, but no more; bearing to the potato such relation as sea-cale does to asparagus. It may be added, however, that the oxalis crenata is, in other respects, a useful vegetable. The leaves may be used as salad, and form, indeed, the principal salad at Lima. The shoots and young branches are found to make a pleasant purée, having the wood-sorrel flavour; and the larger stems have been used in tarts, in the manner of rhubarb-stalks, and been found more tender.

Alliaceous Plants.

The ONION (*Allium Cepa*) is too well known to require description: it has been cultivated in this country from time immemorial. Among the varieties may be enumerated:

Strasburgh,	Silver-skinned,
Deptford,	White Portugal,
Globe,	Blood Red,
James's Keeping,	Potato Onion.

Besides these, the Welsh Onion or Ciboule (*Allium fistulosum*, L.), a native of Siberia, is sometimes grown for scallions. For a general crop, the Strasburgh and Deptford varieties may be esteemed the best. The White Portugal grows to a large size, but does not keep well. The silver-skinned is chiefly used for pickling.

The onion affects a light, rich, well worked soil, which has not been recently manured. The principal crop may

be sown in the course of the month of March, according to the state of the weather and the dryness of the ground. Onions are grown in beds, four or five feet in width, and are regularly thinned, hoed, and kept free from weeds. About the beginning of September the crop is ripe, which is known by the withering of the leaves; the roots are taken up, and, after being well dried, are stored in a garret or loft, where they may be perfectly secured from damp.

Towards the end of August a secondary crop is sown, to afford a supply of young onions or *scallions*, as they are called, in the spring months. The Strasburgh and White Portugal may be used for this purpose. Those which are not required for the kitchen being allowed to stand, if the flower-bud is picked out on its first appearance, and the earth is stirred about them, frequently produce bulbs equal in size and quality to the large ones that are imported from the Continent.

Some eminent horticulturists have strongly recommended the transplanting of onions. Mr Knight sows the White Portugal onion in spring under the shade of a tree, where they remain of a diminutive size. They are kept over winter, and are planted out in the succeeding spring. Mr Brown collects all the minute bulbs of the ordinary crop, and uses them in the same way. Mr Macdonald, Dalkeith Park, confines his operations to one summer. He sows in February on a slight hot-bed, or sometimes merely under a glass frame. In the first or second week of April, according to the state of the weather, he transplants the young seedlings in rows, eight inches asunder, and at the distance of four or five inches in the row. Previously to planting, the roots of the seedlings are dipped in a puddle of one part of soot to three parts of earth, an expedient which is found to secure the transplanted onions from the wire-worm. Onions thus treated attain a large size. We have seen autumn-sown onions submitted to a similar management with great success.

The POTATO ONION is propagated by the lateral bulbs, which it throws out, under ground, in considerable numbers. It is planted about mid-winter, and ripens in summer. Its flavour is strong, and not unpleasant; but the plant being rather delicate and troublesome in cultivation, is not likely to supersede the common onion.

The PEARL ONION, of recent introduction, and hitherto little known, produces clusters of small bulbs at the root. These little bulbs are of a fine white colour, like the silver-skinned onion, and very fit for pickling.

The LEEK (*Allium Porrum*) is a native of Switzerland, but has probably been cultivated in this island for many centuries. The varieties are the narrow-leaved or Flanders leek, the Scotch or flag leek, and the broad-leaved or tall London leek. Of these the Scotch leek is considered as the most hardy.

Leeks are sown in beds in spring; and in June or July are planted out in rows fifteen or eighteen inches apart, and six inches asunder between the rows. The tips of the fibrous roots are trimmed before planting. When the weather is moist, it is found beneficial merely to lay the plant into the hole made by the dibble, without closing the earth upon it, the stem being by this means encouraged to swell out and fill the hole.

SHALLOT (*Allium ascalonicum*) is a native of Palestine. It is much used in cookery for high-flavoured soups and gravies, and is sometimes put into pickles. It is propagated by off-sets, which are commonly planted in September or October. Some recommend the mixing of soot with the manure as a protection against maggots, by which this plant is greatly infested. Autumn planting, however, is found the best expedient, as the bulbs are ripe before the larvæ commence their depredations.

Kitchen
Garden.

Kitchen
Garden.

GARLIC (*Allium sativum*) and **ROCAMBOLE** (*Allium Scodoprasum*), though common ingredients in continental cookery, are comparatively seldom used in this country. A few rows will generally be found sufficient. They are propagated by offsets from the roots, or by the bulbils which grow on the flower-stem. The **CHIVE** or *Cive* (*Allium Schoenoprasum*), a pleasant little native plant, is used occasionally as salad and alliaceous seasoning. A single row may be planted as an edging to an onion bed, and it is easily increased by parting the roots in spring and autumn.

Spinaceous Plants.

SPINACH (*Spinacia oleracea*) is an annual plant, and is a native of Western Asia. It has long been cultivated for the sake of its succulent leaves, which, when properly dressed, form a pleasant and nutritious article of food. There are two varieties; the round-leaved or smooth-seeded, and the angular-leaved or prickly-seeded. The latter, as being the most hardy, is used for the winter crop.

The first sowing is made in August, in some sheltered situation; the plants, as they advance, are thinned, and the ground is hoed. In the beginning of winter the outer leaves become fit for use; in mild weather, successive gatherings are obtained, and, with proper management, the crop may be prolonged to the beginning of May.

To afford a succession crop, the seeds of the round-leaved variety should be sown in the end of January, and again in February and March. From this period it is proper to sow small quantities once a fortnight, summer spinach lasting only a very short time. The open spaces between the lines of cauliflower, and others of the cabbage tribe, will generally afford enough of room for these transient crops. They are generally sown in shallow drills, and are thinned out and weeded as may be required.

WHITE BEET (*Beta Cicla*) is cultivated for the leaves, which are used as spinach. The midribs and stalks of the great white beet, when separated from the leaves, are stewed and eaten as asparagus, under the name of Swiss Chard. The culture does not differ materially from that of the red beet.

NEW ZEALAND SPINACH (*Tetragonia expansa*) is a half-hardy annual, a native of New Zealand, from which it was brought by the late Sir Joseph Banks. It is an excellent substitute for spinach; and if well watered, it will continue to afford large quantities of succulent leaves during the hottest weather. It is sown in a pot placed in a melon-frame in March: the seedlings are transplanted into small pots, and kept under cover till the beginning of June, when they are plunged out at two or three feet apart, and treated somewhat like gourds. In gathering the leaves, care must be taken not to injure the leading shoots.

QUINOA SPINACH (*Chenopodium Quinoa*). This vegetable is a native not only of Chile, but of the table land of Mexico. It is described and figured by Ruiz and Pavon, and Humboldt informs us, that in Mexico the leaves are universally used as spinach or greens, and the seeds in soups, or like rice, so that quinoa there vies in utility with the potato itself. Although the plant had been known in Britain for a number of years, it was only during the autumn of 1834 that any considerable portion of seed was ripened or saved in this country. This was accomplished at Boyton in Wiltshire, by Mr Aylmer Bourke Lambert, the well known patron of botany and horticulture. Considering the elevated region in America in which the quinoa is successfully cultivated, there can be no doubt that its herbage will be freely produced in this country; but it seems probable that, in order to secure the ripening of seeds, it may be requisite to place some plants close by a wall having a south or south-west aspect, as is practised with seeding onions; more especially since we are warned

by Willdenow, that, in Germany, "*semina sub dio non semper perficunt*." There are two varieties, the common white-seeded or green quinoa, and the dark-seeded or red quinoa, the former seemingly the more hardy, or at least germinating most freely.

GARDEN ORACHE (*Atriplex hortensis*), **WILD SPINACH** (*Chenopodium Bonus Henricus*), and **GARDEN PATIENCE** (*Rumex Patientia*), are sometimes used in place of common spinach; but as, in this country at least, they are deemed rather curious than useful, it may be sufficient to indicate their names.

Kitchen
Gard.

Asparaginous Plants.

ASPARAGUS (*Asparagus officinalis*) is a perennial plant, a native of the shores of Britain, where it occurs sparingly, and of the steppes in the east of Europe. Though somewhat unpromising while in a state of nature, it affords, in cultivation, an esculent of considerable value, and is therefore grown extensively both in private and in sale gardens. The principal varieties are the *red-topped* and the *green-topped*, of which the latter, while it is less succulent, is considered the better flavoured. There are numerous subvarieties, such as the Battersea, Gravesend, Giant, &c., which differ only slightly or not at all from those already mentioned.

Asparagus, growing naturally on loose sand, loves a light deep soil, through which it may be able to shoot its long stringy roots. Two feet and a half is considered a desirable depth, but in France the ground is sometimes prepared, by sifting, to the double of that depth. A considerable portion of well-rotted dung or of recent sea-weed is laid in the bottom of the trench, which may be from two to three feet deep; and another top-dressing of manure should be digged in preparatory to planting or sowing. The older horticulturists used to grow their asparagus in beds four or five feet wide, with intervening alleys of about eighteen inches in breadth. At present, in Scotland, it is customary to sow or plant in rows from three to four feet asunder; a method which, in every way, is found to be most convenient. Except where the garden is new, when, of course, it is advantageous to procure a supply of ready grown plants, it is thought preferable to keep up the stock of asparagus by sowing.

The sowing is made in March, in slight drills; and, as a portion of the seed often fails to germinate, it is a good precaution to employ about double the quantity of seed that may be ultimately necessary. If the plants come up too thickly, they may be thinned out towards the end of the first summer, to the distance of about six inches in the rows. The ground is hoed, and kept clear of weeds. It is a common practice to take slight crops of onions, lettuce, cauliflower, or turnip, between the lines of asparagus during the first, and, if the rows be wide, also in the second year. The young heads or stalks, the part used, should not be cut before the third spring, and they are not in perfection till the fourth or fifth.

The asparagus quarter can scarcely be over manured. The proper time to perform this operation is in the end of autumn, when the annual flower-stalks are removed, preparatory for winter. When beds are employed, their surface should be stirred with a fork; a layer of well-rotted hot-bed dung is then laid on, and the whole covered with a sprinkling of earth from the alleys. If the plants are grown in rows, the manure is simply dug in by means of a three-pronged fork, care being taken not to injure the roots. This operation is repeated annually. No other culture is required; but it is necessary to observe a due moderation in reaping the crop, as the shoots, when much cut, become progressively smaller and less valuable. Hence a considerable quantity of ground is required for the culti-

Kitchen Garden. vation of this vegetable, and it is a general rule never to gather it after pease have come into season.

Asparagus readily admits of being forced. The most common method is to prepare, early in the year, a moderate hot-bed of stable litter, and to cover it with a common frame. After the heat of fermentation has somewhat subsided, the surface of the bed is lined with turf, to prevent the escape of vapour; a layer of light earth or exhausted tan-bark is put over the turf, and in this the roots of plants five or six years old are closely placed. The crowns of the roots are then covered with two or three inches of soil. A common three-light frame may hold 500 or 600 plants, and will afford a supply for several weeks. After planting, linings are applied when necessary, and air is occasionally admitted. Care must be taken not to scorch the roots. Where there are pits for the culture of late melons or succession pine plants, such as the Alderston pit, or the succession pit with the hot-water circulation, they may advantageously be applied to this purpose.

It has been recommended (*Lond. Hort. Trans.* vol. v.) to force asparagus on the ground on which it grows. Perhaps the best method is that suggested by Mr Spiers in vol. iv. of the Gardener's Magazine. The seed is sown in beds four feet eight inches wide, and there are four rows of plants, eleven inches asunder in the bed. The beds are lined by a pigeon-hole brickwork two feet deep, an operation which we presume need not be performed till immediately before forcing, that is, when the plants are at least four years old. In October, when the stalks are cleared away, the surface is covered with littery straw. When forcing is commenced, the brick-lined trenches are filled with hot stable-dung, well beaten, to about eighteen inches above the surface of the ground. The bed is also covered with prepared dung. In about twelve days, when the buds have begun to appear, the latter covering is removed, glazed frames are placed upon the brick-work, a little fine soil is sifted over the plants, the linings in the trenches are raised higher, and the whole treated like a common hot-bed. In this way, we are informed, excellent supplies may be obtained, and the plants may be forced every year.

Before leaving this subject, it may be mentioned, that about Bath, the young flower-spikes of *Ornithogalum pyrenaicum*, found native in that neighbourhood, are used like asparagus, under the name of *Prussian grass*.

SEA-KALE (*Crambe maritima*) is a perennial plant, growing spontaneously on the shores of the southern parts of the island. The roots are spreading, the leaves waved, glaucous, and covered with a fine mealy bloom, and the stalks rise to about two feet high, bearing white flowers which smell of honey, followed by seed-pods, each containing a single seed.

The country people in the west of England have long been accustomed to use in spring the young shoots, which, by passing through the sand and gravel on which they grow, are somewhat blanched and rendered tender. In conformity with this practice, the cultivation formerly recommended consisted merely in covering the beds on the approach of spring with a little dry earth or sand, in order to the blanching or intensifying of the shoots. These were cut as they appeared in March and April. Now, however, the blanching is not only much more completely effected, but simple means have been devised for supplying the table for half the year, including all the winter months. It has, within these few years, become a vegetable of common occurrence in the markets both of London and Edinburgh.

Sea-kale seems partial to a light dry soil. If manure be added, it should consist of sea-weed or leaves of trees. The plants may be propagated by offsets, or small pieces of the roots having buds or eyes attached to them; but the most

eligible method is by seed. We have seen very tolerable blanched stalks produced by plants only nine months old from the seed, and after two summers, seedling plants will have acquired sufficient strength for general cropping. The sowing is made in March, the seeds being deposited in patches of three or four together, the patches being arranged in lines three feet apart, and two feet in the line. In order to secure a succession, and to obviate the bad effects of forcing, it is proper to sow a few lines of sea-kale every year.

Various modes of blanching the shoots have been resorted to. In the first volume of the *Memoirs of the Caledonian Horticultural Society*, Sir George Mackenzie describes a very convenient method. The sea-kale bed is merely covered, early in spring, with clean and dry oat-straw, which is removed as often as it becomes dry and musty. The shoots rise through the straw, and are at the same time pretty well blanched. Others employ dried tree-leaves for this purpose. Another method practised by many gardeners consists in placing over each plant a flower-pot of the largest size inverted; but convenient *blanching-pots*, with moveable lids, have been constructed for the express purpose. It may be proper to provide from thirty to sixty such pots; and it may be expected that each pot will, on an average, furnish a dish and a half of shoots during the season.

With the aid of these pots, sea-kale is forced in the open border in the way now to be described. In the latter end of autumn a bed of vigorous sea-kale plants is dressed, that is, the stalks are cut over, and the decayed leaves are removed. The ground is, at the same time, loosened about the eyes, and a thin stratum of gravel or sifted coal-ashes is laid on the surface to keep down earth-worms. A pot with a moveable cover is placed over each plant or each patch of plants. Stable-litter is then closely packed all round the pots, and raised up to about a foot above them; the whole thus assuming the form and appearance of a large hot-bed. When fermentation commences, a thermometer should be occasionally introduced into a few of the pots, to ascertain that the temperature within does not exceed 60° Fahrenheit, and the depth of the litter is to be regulated accordingly. The vegetation of the included plants is speedily promoted; so that, in the space of a month or six weeks, the shoots will be ready for cutting, which, being thus excluded from the light, are most effectually blanched, and are exceedingly tender and crisp. By means of the moveable lids, the plants are examined and the shoots gathered without materially disturbing the litter. By commencing at various times, a supply for the table can be readily furnished from the middle of November till the middle of May.

The ARTICHOKE (*Cynara Scolymus*) is a perennial plant, a native of the south of Europe, and is a well known inhabitant of our gardens. It resembles a thistle on a large scale. In France, the entire head or whole leaves of the involucre of the artichoke are eaten, when in a young and tender state, *en poivrade*, or with pepper, salt, and vinegar; but in this country the only parts used are the base of the leaves of the involucre, and the immature floral receptacle, or phoranthium, commonly called the *bottom*, freed from the bristly seed-down which has been called the *choke*. The varieties are the conical or French, the globe or red artichoke, and the dwarf globe. Of these the first is the highest flavoured, the second is well adapted for a general crop, and the third is prolific, and occupies little room.

The artichoke loves a deep cool dry soil. It is propagated by parting the roots in April, the sets being planted in rows four or five feet asunder, and two feet apart in the rows. The young plants generally afford a crop which succeeds that of old plants; and for this reason a new plan-

Kitchen Garden.

Kitchen
Garden.

tation is made in some gardens every year. During summer the plants are kept clear of weeds, but require little other attention. In November the decayed stems and leaves are removed, and the ground cleared. In some gardens the earth is ridged slightly around the roots, in order to defend the stools from the frost. This, however, is done more effectually by a litter of straw, or of the refuse of the stable-yard, of the depth of a foot, drawn close round the base of the leaves. In April this litter is taken away, the stocks are examined, and two or three only of the strongest shoots are permitted to remain. The offsets, which are carefully removed, afford materials for a young plantation. The ground between the rows is dugged over. At this time manure may be applied; well-rotted hot-bed dung, and above all sea-weed, being considered preferable.

The CARDOON (*Cynara Cardunculus*) is a perennial plant, a native of the south of France and Spain. It has a close resemblance to the artichoke, but surpasses it in size. The edible part, or *chard*, as it is called, is composed of the blanched and crisp stalks of the inner leaves. Besides the common sort there is a prickly variety, known in France by the name of the Cardoon of Tours. The common artichoke is also used for the production of chard. Cardoons are found to prosper on light deep soil. The seed is sown annually about the middle of May, in shallow trenches, like those for celery, and the plants are thinned out to ten or twelve inches from each other in the lines. In dry weather water is copiously supplied, not only to increase the succulence of the leaves, but to prevent the formation of flower-stalks, which render the plant useless. In autumn the leaves are applied close to each other, and wrapped round with bands of hay or straw, the points of the leaves only being left free. Earth is then drawn up around the leaf-stems to the height of fifteen or eighteen inches. Sometimes cardoons are blanched by a more thorough earthing up, in the manner of celery, but in this case the operation must be carried on from the end of summer. During severe frost the tops of the leaves should be defended with straw or litter.

The RAMPION (*Campanula Rapunculus*) is an English native biennial, the roots of which, under the name of *ramps*, are used as a salad, or boiled like asparagus. It is but little cultivated in this country. The seed is sown broadcast, about the beginning of June, in a cool situation, and the young plants are merely to be thinned and kept clear of weeds. On the approach of frost, the roots, which somewhat resemble small radishes, are stored in sand, and will keep fresh and firm till spring.

Salads, &c.

LETTUCE (*Lactuca sativa*) is a hardy annual, but of what country it is a native is unknown. Some suppose it to be a seminal variety of the native *L. virosa*, a poisonous plant, "which," says Professor Lindley, "would not be more remarkable than the fact, that the indigenous celery is one of our strongest poisons." Besides its well known uses, it may be mentioned that the late Dr Duncan senior, of Edinburgh, prepared from its milky juice, a medicine denominated *Lactucarium*, similar in its action to opium, but capable of being administered in cases where that powerful drug is inadmissible. There are two principal varieties, the Cos or upright, and the Cabbage-lettuce. The subvarieties are numerous; we may mention the following:

Early Forcing Cos,	White Cabbage,
Green Cos,	Brown Dutch Cabbage,
White Cos,	Imperial Cabbage,
Cilicia,	Grand Admiral.

By proper care fresh lettuce may be had throughout the whole year. The first sowing is made in January, in some

sheltered situation, or under hand-glasses, or in February on a gentle hot-bed. The seedlings are transplanted as soon as the weather will permit. A second sowing may be made in the beginning of March, and another in April. Besides the ordinary compartments, the seedlings may be planted on celery ridges, between rows of slight crops of other vegetables, and, in short, in any odd corner which may occur. To obtain a winter supply, a sowing is made in August or September, and the plants are pricked out in October, along the bottom of walls, or under glazed frames.

ENDIVE (*Cichorium Endivia*) is an annual plant, a native of China, from which it was introduced in 1548. It is the lettuce of winter, the blanched hearts being used for salads and in soups. The varieties are, the Broad-leaved Batavian, the Green Curled-leaved, and the White Curled-leaved. A sowing may be made in the beginning of June, and another in July, the seeds being scattered very sparsely, that the plants may not come up in clusters. The seedlings are transplanted into a rich soil, and are arranged in rows twelve or fifteen inches asunder, and at the distance of ten inches in the row. Sometimes they are planted in drills to facilitate the operation of blanching. The later crop should be placed in a sheltered situation, where it may be able to withstand the winter. When the plants have reached their maturity, the leaves are gathered up, and tied together an inch or two below the tips, and afterwards about the middle of the plant. In two or three weeks they are found sufficiently blanched for use. In winter it is necessary to draw the earth quite up about the leaves. At that season, too, the plants may be inserted into a sloping bank of earth, or blanched in boxes in the mushroom-house, or in a cellar.

SUCCORY (*Cichorium Intybus*) is an indigenous plant, the cultivation of which may be said to have been introduced by the foreign refugees during the French revolutionary war. By the French it is much esteemed as a winter salad, and, when blanched, is known by the name of *Barbe du Capucin*. When intended for winter use, the seed is sown in May or June, commonly in drills, and the plants are thinned out to four inches apart. If the first set of leaves grow very strong, owing to wet weather, they are cut off perhaps in the middle of August, about an inch from the ground, so as to promote the production of new leaves, and check the formation of flower-stems. About the beginning of October the plants are raised from the border; all the large leaves are cut off; the roots are also shortened. They are then planted pretty closely together in boxes filled with rich light mould, and watered when needful. When frost comes on, the boxes are protected by any kind of haulm. As the salad is wanted, they are removed into some place having a moderately increased temperature, but with little light, such as a mushroom-house or cellar off the kitchen. Each box affords two crops of blanched leaves, and these are reckoned fit for cutting when about six inches long. The roots of this plant, it may be added, have been employed as a substitute for coffee-beans, and in Flanders, and some parts of France, a portion of them is very often mixed with coffee.

PARSLEY (*Apium Petroselinum*) is a biennial plant, of well-known use in cookery. It is said to be a native of Sardinia, but it now grows spontaneously in various parts of Britain. The varieties are the Common, the Curled-leaved, and the Hamburg, the last of which is cultivated for the sake of its tuberous roots. Parsley loves a light rich soil. It is sown in drills about the beginning of March, and the seed lies some weeks in the ground before the plants appear. As they grow up they are thinned out, and they are defended by branches or other coverings from hard

Kitchen
Garden.

Kitchen Garden. weather in winter. The Hamburg variety being cultivated for its roots, is sown about the same time in a well trenched soil, in drills a foot apart, and it is thinned to about nine inches in the rows. In the beginning of November the roots are taken up and stored in sand.

CELERY (*Apium graveolens*) is a native biennial, an inhabitant of the sides of ditches near the sea. In its wild state it is of an acrid nature, and of a coarse, rank flavour; but by cultivation it is improved into one of the most agreeable salads. There are two principal varieties; *celery* properly so called, with upright stalks and fibrous or slightly tuberous roots; and *celeriac* with large turnip-shaped roots. Of the former, the principal subvarieties are, the Italian, the Red Solid, and the White Solid, of which the second and third are the best.

Celery is usually sown at three different times: on a hot-bed in the beginning of March, and in the open ground in March, and again in April. The seedlings, when about two inches high, are pricked into rich soil, in which they are allowed to stand till they are four or five inches high. The first crop is defended by frames or hand-glasses, and is planted wide to admit of being lifted with balls of earth adhering to the roots. Towards the end of May trenches for blanching the celery are prepared. These trenches are three and a half or four feet apart, fifteen inches wide at the bottom, and about a foot below the natural level of the surface. The soil at the bottom of the trench is carefully digged and manured, and a single row of plants is placed in each trench. Sometimes where a large supply is required, the trenches are made six feet wide, and after a similar preparation, rows fifteen or eighteen inches apart are planted across the trenches. As the plants advance in growth, earth is laid up about the stalks of the leaves, an operation which is repeated at the end of every ten or fifteen days, care being taken not to choke the plants. As the celery approaches maturity, scarcely any thing but the tips of the leaves appear above the ridges, and, when lifted, the stalks are found to be completely blanched. Successional crops should then be planted out. Celery loves a rich light soil and an abundance of moisture.

CELERIAC, or turnip-rooted celery, is treated at first like the early crop of common celery. In the beginning or middle of June it is planted out in a flat bed, in drills fifteen inches apart. A single earthing afterwards suffices. Its large round roots are used in soups, and are much relished by some. It is, however, more attended to in France and the Low Countries than in Britain.

GARDEN CRESS (*Lepidium sativum*), and **WHITE MUSTARD** (*Sinapis alba*), are generally associated in their use as salads, and in their culture in the garden. They are annual plants, and are eaten only when very young. In winter they may be raised on a slight hot-bed, in spring under hand-glasses, or in drills near a south wall, and in summer, when they should be sown once a fortnight, in drills, in any cool shady situation. Table mustard, which is made from *Sinapis nigra* L., belongs rather to the department of agriculture. Durham mustard, which is distinguished for its poignancy, though not remarkable for fine colour, is said to be made principally from the seeds of the common yellow field mustard or charlock, *Sinapis arvensis* L.

Of **RHUBARB** (*Rheum*) several species and many varieties are cultivated for the purpose of supplying materials for tarts, the foot-stalks of the leaves being well adapted for that purpose, and coming into use at a most convenient season. *R. rhaponticum* and *palmatum* were the species first employed, and are still occasionally used; but the sorts now preferred are seminal varieties, mostly allied to *R. hy-*

bridum and *R. undulatum*. The following are the most worthy of notice:

Wilmot's,
Gigantic,

Elford,
Buck's.

Of these, the talented editor of the *Horticultural Register* decidedly prefers the first two, the former as being excellently suited for forcing, the latter as growing to a great size, without rankness. They may be multiplied by dividing the roots, and this is the common practice; but they thrive much better when grown from seed. Mr Paxton recommends sowing on a slight hot-bed in spring, and transplanting out in rows in the month of May. No stalks are gathered from them for the first two years, but in the third season they are fit for use. A portion of the crop is allowed to come on under the general influence of the season; but much also is forced, which may be done in a variety of ways. Some treat it like sea-kale, covering the root allowed to remain in the ground with a large pot or box, and wrapping it round with litter. Others take up the roots in autumn, pot them, and force them in vineries or hot-beds. Perhaps the best method is to procure long narrow boxes of a moderate depth, and to place them, packed full of roots, in a mushroom-house or cellar, where there is a considerable temperature. The rhubarb soon throws up its stalks, and these being partially etiolated, possess a delicacy and flavour superior to those grown in the open air. It is easy, by varying the time of subjecting the boxes to the increased temperature, to keep up a succession of rhubarb stalks, from the period at which kitchen apples become scarce or begin to lose their flavour, till green gooseberries come into season.

The following annual plants are occasionally used in cookery, or as salads: *Chervil*, *Scandix cerefolia*; *Purslane*, *Portulaca oleracea*; *Lamb's-Lettuce*, *Fedia olitoria*; *Indian Cress*, *Tropæolum majus*; *Marigold*, *Calendula officinalis*; *Borage*, *Borago officinalis*. These may be sown in spring, or in the beginning of summer, in any fresh light soils. In general a small quantity will suffice.

The *Common Sorrel*, *Rumex acetosa*; and the *French Sorrel*, *Rumex scutatus*; and the *Horse-radish*, *Cochlearia Armoracia*, are perennials, and are increased by parting their roots. They thrive in any cool shady situation.

The *Capsicum* or *Chili*, *Capsicum annuum*, and the *Love-Apple*, *Solanum Lycopersicum*, are tender annuals from tropical climates. Both are sown in hot-beds in spring, and after being transplanted and nursed in separate pots, are planted out, the former in a warm border, and the latter against a wall. In Scotland the *Capsicum* will scarcely mature its fruit without the aid of glass.

Dill, *Anethum graveolens*, and *Angelica*, *Angelica archangelica*, are umbelliferous biennials, which have been for a long period, though not extensively, cultivated in our gardens. They are easily raised from seed. With these may be associated the beautiful perennial, *Fennel*, *Anethum Fœniculum*, used in salads and sauces. It may be propagated either by parting the roots, or by seeds, which should be sown in autumn, soon after they are ripe.

In every garden there is a small department set apart for the culture of Sweet Herbs and Medicinal Plants. We need not here enter into details respecting their uses or culture, but shall merely give classified lists.

Shrubby Plants increased by parting the roots, or by cuttings:—*Thyme*, *Thymus vulgaris*; *Sage*, *Salvia officinalis*; *Winter Savory*, *Satureja montana*; *Rosemary*, *Rosmarinus officinalis*; *Lavender*, *Lavandula Spica*; *Hyssop*, *Hyssopus officinalis*; and *Rue*, *Ruta graveolens*.

Perennial Herbaceous Plants, increased by parting the roots:—*Spearmint*, *Mentha viridis*; *Peppermint*, *M. pipe-*

Flower
Garden.

rita; *Pennyroyal*, *M. pulegium*; *Balm*, *Melissa officinalis*; *Tarragon*, *Artemisia Dracunculus*; *Tansy*, *Tanacetum vulgare*; *Costmary*, *Balsamita vulgaris*; *Chamomile*, *Anthemis nobilis*.

Biennial or Annual Plants, increased by sowing the seeds:—*Clary*, *Salvia Sclarea*; *Coriander*, *Coriandrum sativum*; *Caraway*, *Carum Carui*; *Sweet Marjoram*, *Origanum majorana*; *Summer Savory*, *Satureja hortensis*; *Sweet Basil*, *Ocimum basilicum*; and *Bush Basil*, *O. minimum*. These last, the basils, which are natives of the East, and in much request for their delicate flavour, are raised on hot-beds in spring, and transplanted with balls, into some warm situation. In Scotland, they are mostly treated as tender annuals, and are grown, under glazed frames, in flowerpots.

There are besides a few others, which, in each of the classes, more properly belong to the Dietetics, and the *Materia Medica*. The young green leaves of *Prunus Lauro-cerasus* (under the name of laurel), may properly enough be employed in garnishing; but they ought never to be used, as they too often are, for giving a nutty flavour, or for greening other articles; hydrocyanic acid being given out, and proving injurious, even in small quantities.

THE FLOWER GARDEN.

The cultivation of flowers, if not the most useful, is at least one of the most pleasing occupations of the horticulturist, and has generally shared largely in his attention. It is probable, that at first, flowers, as objects of curiosity, were confined to a few patches or borders in the garden, as is still the case in many old places; but in the progress of the art, and the diffusion of taste, separate departments were allotted to them under the name of Flower Gardens. After some general remarks on style and situation, we shall treat of the component parts of flower gardens, their various decorations, and of floriculture.

The designing of flower gardens unquestionably belongs to the fine arts, involving in it, the exercise of invention, taste, and foresight. Its principles are more vague and evanescent than those of any of the sister arts. The hand of the designer is not here guided by the imitation of Nature, for his work is wholly artificial in its arrangements and appliances; neither does utility come in, as in architecture, to supply a form and frame-work, which it is the artist's part to adorn. "As flower gardens," says Mr Loudon, the best authority on this topic, "are objects of pleasure, the principle which must serve as a guide in laying them out, must be taste. Now, in flower-gardens, as in other objects, there are different kinds of tastes; these embodied are called styles or characters; and the great art of the designer is, having fixed on a style, to follow it out unmixed with other styles, or with any deviation which would interfere with the kind of taste or impression which that style is calculated to produce. Style, therefore, is the leading principle in laying out flower gardens, as utility is in laying out the culinary garden. As objects of fancy and taste, the styles of flower gardens are various. The modern style is a collection of irregular groups and masses, placed about the house as a medium, uniting it with the open lawn. The ancient geometric style, in place of irregular groups, employed symmetrical forms; in France, adding statues and fountains; in Holland, cut trees and grassy slopes; and in Italy, stone walls, walled terraces, and flights of steps. In some situations these characteristics of parterres may, with propriety, be added to, or used instead of the modern sort, especially in flat situations; such as are inclosed by high walls; in towns, or where the principal building or object is in a style of architecture which will not render these appendages incongruous. There are

Flower
Garden.

other characters of gardens, such as the Chinese, which are not widely different from the modern; the Indian, which consists chiefly of walks under shade, in squares of grass; the Turkish, which abounds in shady retreats, boudoirs of roses and aromatic herbs; and the Spanish, which is distinguished by trellis work and fountains; but these gardens are not generally adapted to this climate, though, from contemplating and selecting what is beautiful or suitable in each, a style of decoration for the immediate vicinity of mansions, might be composed preferable to any thing now in use." It may, however, be remarked, that the flower garden properly so called, has generally been too much governed by the laws of landscape gardening, and these often ill-understood, and misapplied. In the days of "clipped hedges and pleached alleys," the parterres and flower-beds were of a description the most grotesque and intricate imaginable. At a subsequent period, when the natural and the picturesque became the objects of imitation in the park, there appeared the most extravagant attempts at wildness in the garden. The result has been unfortunate. It is not meant that when there are merely a few patches of flowers by way of foreground to the lawn, they should not be subordinated to the principles which regulate the more distant and bolder scenery; but wherever there is a flower garden of considerable magnitude, and in a separate situation, it should be constructed on principles of its own. In such a spot, the great object must be to exhibit to advantage the graceful forms and glorious hues of flowering plants and shrubs; and it is but seldom that mere elegancies in the forms of compartments, and other trickeries of human invention, can bear any comparison with these natural beauties. To express the peculiar nature of garden scenery, as distinct from the picturesque in landscape, Mr Loudon has invented the term *gardenesque*; and, whatever may be thought of the term itself, it is very desirable that the distinction should be preserved.

Two varieties of flower gardens have chiefly prevailed in Britain; one, in which the ground is turf, and the pattern, so to speak, is composed of a variety of figures cut out of the turf, and planted with flowers and shrubs; and another, when the flower-beds are separated by gravel walks, without being interspersed with grass at all. The choice of one or other of these varieties ought greatly to depend upon the situation. When the flower garden is to be seen from the windows, or any other elevated point of view, from which the whole or the greater part of the design may be perceived at once, perhaps the former should be preferred. Where the surface is irregular, and the situation more remote, and especially where the beauty of flowers is the chief object of contemplation, the choice should probably fall on the latter. This variety, too, seems preferable, on the principle of contrast, where there are large lawns in the outer grounds, in order that *kept* (or smoothly mown) grass may not be found every where.

Respecting the situation of the flower garden, no very precise directions can be given, as it must be influenced by the nature of the lawns, and of the site of the mansion to which it is attached. Generally speaking, it should not be at any great distance from the house; and in places where there is no distant view of importance, it may be constructed under the windows. In retired scenes, it is delightful to step out of the drawing-room into compartments of flowers, in the vicinity of a greenhouse or conservatory. On the other hand, when the park is spacious, and the prospects extensive and picturesque, it is perhaps better that the flower garden should be at some distance, say not more than a quarter of a mile, and out of sight of the house, but with an easy access in any sort of weather; an arrangement which would give an agreeable termination to a short walk, a desirable matter in most cases, for it has been often remarked that many parts of

Flower
Garden.

extensive grounds remain unvisited, because they afford no remarkable object to attract the attention.

The particular form of a flower garden is equally beyond the inculcation of specific rules. Indeed, it may be of any shape, and, except where the dimensions are extremely limited, the boundaries should not be continuously visible. The taste of the proprietor or designer, and the capabilities of the situation, must determine not only the external configuration, but also the arrangement of the interior parts. By judicious management, it may be made to pass through shrubbery, gradually assuming a more woodland character, and groups of trees, into the park on the one hand, and into the kitchen garden or orchard on the other. In most cases, even when it is in the vicinity of the mansion-house, the flower garden should be encircled with some sort of fence, in order to convey the idea of protection, as well as to furnish security to the vegetable inmates of the parterres, it being impossible to carry on floriculture to any great extent in open places which are accessible to hares and rabbits. In detached localities, the fences may be made sufficiently strong to preclude the intrusion of every species of vagrant; and these it is not difficult to mask with shrubs and trees. A north wall of moderate extent and moderate elevation, is often desirable, as affording space for ornamental climbers, and half-acclimatized exotics, and as forming a *point d'appui* for the conservatory and other botanical structures. Such a wall may be surmounted with urns and other architectural ornaments, and screened at some little distance behind by trees. The other fences may be of wire-work, generally called *invisible*, or of wooden rails, or of holly hedges with rails.

Formerly the flower-beds were made either circular, straight, or in curves, and were turned into knots, scrolls, volutes, and other compartments; and this taste prevailed, perhaps, in some measure from a desire on the part of the contrivers, to compensate by their ingenuity for the paucity of the ornamental plants which they then cultivated. Now that the riches of Flora have poured into our gardens, a simpler taste has obtained. Of the figures in fashion at present in the lawn-flower-garden, perhaps the kidney-shape and its varieties occur too frequently. It is needless as well as impossible to specify the numerous configurations of flower-plots, for they abound in kaleidoscopic variety. Good taste will suggest that those only should be associated which harmonize well together; and it is better to incur the hazard of an apparent monotony, than to excite wonder by incongruous combination. When the figures are separated by turf, it is necessary that the little lawns or glades should have a certain degree of breadth, as nothing has a worse effect than over-crowding. A multitude of little figures should also be avoided, as they produce what Mr Gilpin calls *spottiness*, and which, as he has correctly pointed out, is a grievous deformity. In this sort of flower garden, it is desirable that a gravel walk should skirt along at least one side of the principal figures; in our humid climate, the grass would otherwise render them inaccessible with comfort during a great part of the year. In those gardens in which turf is wholly or partly excluded, the compartments should be of a larger and more massive character. Narrow borders, bounded by parallel straight lines and concentric curves, should be avoided. The centres of the figures should be filled with tall-growing shrubs, and even with an occasional low evergreen tree, such as a yew or a holly. The walks, arranged in long concave curves, may communicate here and there with one another. A dial, a few seats and arbours, with an urn or two or a vase, may be introduced with good effect. It is to be regretted that few good specimens of this species of flower garden have hitherto been executed in Britain.

Amongst the accompaniments of the flower garden may be mentioned the Rock-work. This consists of variously

grouped masses of large stones, generally such as are remarkable for being figured by water-wearing, or for containing petrifications or impressions; and into the cavities between the stones, filled with earth, alpine or trailing plants are inserted. In proper situations, a small piece of water may be introduced, for the culture of aquatic plants. One of the walks is sometimes arched over with wire-work, and covered with ornamental climbing shrubs, forming a delightful promenade in the glowing days of summer. A separate compartment, generally of a regular figure, is set apart for roses, under the name of the Rosary. A moist or rather a shady border, with bog earth, is devoted to that class of shrubs, commonly, but not very accurately, designated "American plants." In extensive places, a separate "American Garden" is often formed, in a locality which, if not damp, has at least the command of water, occupying generally some warm corner of the park.

Some writers have advocated the formation of Winter and Spring Gardens in separate localities; but we are not aware that their ideas have ever been embodied to any great extent. It is proposed that in the winter garden should be assembled all the most beautiful evergreen shrubs and plants, together with the few flowers that bloom during the winter months. The situation, it is recommended, should be well sheltered, and open only to the warm rays of the sun, which are peculiarly grateful in our cold winter seasons. However attractive this scheme may be in theory, it seems doubtful whether it would be very successful in execution. Masses of evergreens have a sombre and monotonous effect, even in winter, unless occasionally broken and varied by deciduous trees. The contrast of their leafless neighbours relieves the intenseness of their gloom, and sets off their brilliancy. Though a winter garden, the very name of which is chilling, is perhaps not very desirable by itself, the object to be attained in it should be kept in view in the formation of the park or flower garden. We can easily suppose a particular section of the latter to contain a predominance of evergreens, and to possess the principal characters of a Winter Garden, without the formality of its name and purpose. In the immense variety of situations, it is not difficult to imagine a sloping bank, for instance, facing the sun, with a long walk skirting its base, the lower side of which might be adorned with a border or narrow parterre planted with arbutus and periwinkle, whilst the slope is covered with the higher evergreens, and the summit of the acclivity is crowned with groups of deciduous trees, interrupted by a few straggling firs, through which the wind, unfelt below, might sigh its melancholy music. Again, the Spring Garden, which need not be of very great extent, may take refuge in the vicinity of the greenhouse or conservatory, with which it is naturally allied.

Soil.—A variety of soils is required in the flower garden, to suit the very different kinds of plants that fall to be cultivated. To florists' flowers particular compounds are assigned, and these shall be mentioned when treating of the flowers themselves. *American plants* require a peaty earth, varying from boggy peat to almost pure sand. Alluvial peat, that is, boggy earth which has been washed away and incorporated with white sand, is to be preferred: peat, cut from its natural bed and only partially decomposed, is of no value at all, or is positively prejudicial to plants. In collecting soil from the surface of a muir, it is proper to take no more than the upper turf or sod, with the peat adhering to it, and only from the driest parts of the muir, where, besides the common heath, fescue-grasses occur. Where this cannot be procured, a good substitute is found in vegetable mould, that is, decayed leaves swept from lawns or woods, and allowed to lie in heaps for a few years. For the general purposes of the flower garden, a light loamy soil is advantageous; and where the natural covering is thin, or requires making up, recourse should be had to the

Flower
Garden.

Flower
Garden.

surface-earth of old pastures, which, especially when incumbent on trap-rocks, is found to be excellent. It is expedient to have a large mass of this material in the compost yard. The turf, and the surface-soil adhering to it, should be laid up in a rough state, in which way it is continually ameliorating by the decomposition of the vegetable matters, and the action of the air.

Garden Walks.—During the prevalence of the Dutch taste, grass-walks were common in our gardens; but, owing to their frequent humidity in our climate, they have in a great measure disappeared. Their disuse is perhaps to be regretted, as in some situations, particularly behind lengthened screens of trees, or in gardens from which grass has been in a great measure excluded, an example or two of them would be agreeable. It is justly observed by Sir William Temple, that “two things peculiar to us, and which contribute much to the beauty and elegance of our gardens, are the gravel of our walks, and the fineness and almost perpetual greenness of our turf;” and therefore no trouble should be spared in securing excellence in these respects. In old times grass walks were formed with much care. After the space which they were to occupy had been digged and levelled that it might subside equally, a thin layer of sand or poor earth was laid upon the surface, and over this a similar layer of good soil. This arrangement was to prevent excessive luxuriance in the grass. In selecting the seed, all annual, wiry, and coarse sorts of grass should be avoided. Perhaps a mixture of Roughish Meadow-grass (*Poa trivialis*), Sheep’s Fescue-grass (*Festuca duriuscula* and *Festuca ovina*), and Crested Dogstail-grass (*Cynosurus cristatus*), is about the best that could be selected. *Poa nemoralis* is well adapted for shaded situations.

Gravel-walks, in this department, are formed precisely in the same manner as those in the kitchen garden. It may, however, be remarked, that a multitude of gravel-walks, particularly when narrow, have a puny effect. All the principal lines should be broad enough to allow at least three persons to walk abreast; the others may be narrower. Much of the neatness of walks depends upon the material of which they are made. Gravel from an inland pit is to be preferred; though occasionally very excellent varieties are found upon the sea-coast. The gravel of Kensington and Blackheath has attained considerable celebrity; and is frequently employed in remote parts of the kingdom, the expense being lessened by its being conveyed to different sea-ports as ballast for ships. In summer a gravel-walk requires hoeing and raking from time to time, to clear it from weeds and tufts of grass. After this operation, or even after a simple sweeping, it is rolled down with a hand-roller; and this is repeated as often as the surface is ruffled. Nothing contributes more than frequent rolling to the elegance and convenience of garden walks.

Edgings.—Walks are generally separated from the borders and parterres by a variety of plants planted closely in line. By far the best edging is afforded by the Dwarf Dutch Box (*Buxus sempervirens* var.). It is extremely neat, and, when annually clipped, will remain in good order for many years. It may be planted at any season, except when in full growth or in mid-winter. Excellent edgings are also formed by Sea Pink (*Statice armeria*) and Double Daisy (*Bellis perennis*). Dwarf Gentian (*Gentiana acaulis*) and London Pride (*Saxifraga umbrosa*) are also sometimes used. Indeed, any low-growing herbaceous plant, susceptible of minute division, is fitted for an edging. Among the great variety occasionally employed for this purpose may be mentioned, the Pansy (*Viola tricolor*), the Dwarf Bell-flower (*Campanula pumila*), the Cowslip, Polyanthus, Auricula, Hepatica, Veronica fruticulosa, and Erica carnea. Edgings may also be formed of spars of wood, narrow pieces of sandstone flag, or even of slight bars of cast iron. In shrubberies and large flower-plots, verges

of grass-turf, about a foot in breadth, make a very handsome border to walks. These should not be allowed to rise high above the gravel: an inch and a half may be assigned as the limit they should not exceed. The grass is kept short by repeated mowings, and the edges are defined by clipping with shears, or cutting with a paring iron.

Shrubs.—Much of the beauty of the pleasure garden depends upon the proper selection and disposition of ornamental trees and shrubs; and it is to be regretted that this department of the art has often been greatly neglected. In many gardens we still find only a few evergreens, and a parcel of rugged deciduous species, introduced probably before the age of Miller. No wonder is it, therefore, that we sometimes hear of the insipid scenes of the shrubbery. Nevertheless, shrubs are highly elegant in themselves, and they afford a most efficient means of diversifying garden scenery. Of the many beautiful species now to be had in Britain, and affording the materials of exquisite decoration, we can mention only a few. For extensive lists and for much general information, we may once more refer to the work of Mr Loudon.

Of Evergreens, besides the Common Laurel (*Prunus Laurocerasus*) and the Portugal Laurel (*P. Lusitanica*), we may notice the American Arborvitæ (*Thuja occidentalis*), as adapted to large masses of shrubs; and the Chinese Arborvitæ (*T. orientalis*), whose size and mode of growth fit it for smaller compartments. The different varieties of Rhamnus Alaternus, and the species of Phillyrea and Juniperus, have long and deservedly been favourite evergreens. The Sweet Bay (*Laurus nobilis*), in favourable situations, rises into a handsome shrub or low tree, and may convey to the student of the classics an idea of the Delphic laurel. The Strawberry tree (*Arbutus Unedo*), a native of Ireland as well as of the south of Europe, will always find a place as one of the most elegant of plants, equally beautiful as regards foliage, flower, and fruit: nor should its countryman, the Irish Yew, ascending like the pillared cypress, be forgotten. The Cypress itself, though rather a denizen of the park, may be sparingly introduced. The Laurustinus (*Viburnum Tinus*), with blossoms approaching the snow in whiteness, enlivens the winter season, when nothing else is in flower in the shrubbery. The Swedish and Irish Junipers deserve a place. Different species of Daphne will not be forgotten; it may be sufficient to enumerate *pontica*, *collina*, *Cneorum*, and *hybrida*. As extremely low evergreens, we may mention *Gualtheria procumbens* and *Shallon*, *Polygala Chamæbuxus*, and *Astragalus Tragacantha*; but these would probably be better placed among what are popularly called American plants. Of the more tender evergreens, we should name the *Andrachne* (*Arbutus Andrachne*), a beautiful shrub, but liable to be injured by severe frosts. The Broad-leaved Myrtle (*Myrtus Romana*), in warm places, and with the aid of a covering in the depth of winter, may be made to clothe the walls with its brilliant verdure for eight months in the year, and with its white flowers for some weeks in the end of summer. *Aucuba Japonica*, and *Buxus Balearicus*, are handsome shrubs, of a somewhat stronger constitution: the former is very ornamental in dull shady places, where no other shrub will grow. The beautiful tribes of *Cistus* and *Helianthemum*, some of which are quite hardy, are admirable for adorning sloping banks.

Amongst the shrubs that require a peaty soil, or at least a damp and shady situation, the splendid genus *Rhododendron* holds the principal place. Of the larger species may be mentioned *R. Ponticum*, *Catawbiense*, and *maximum*, with their many beautiful varieties. In early spring, *R. Dauricum* expands its blossoms among the first of flowering shrubs. Nor should we overlook *R. punctatum*, *hirsutum*, *ferrugineum*, and *Chamæcistus*, of humbler growth,

Flower
Garden.

Flower Garden. but not inferior in beauty. With these the closely cognate genus of *Azalea*, with its multitudinous species and varieties, disputes the palm of elegance. The pale and drooping *Andromedas* are scarcely of inferior interest. The hardy *Heaths*, particularly *Erica carnea*, *tetralix*, and *stricta*, *Menziesia polifolia* and *cerulea*, and the Canadian *Rhodora*, combine to bring up the rear of this department of Flora's train.

The deciduous flowering shrubs are too much neglected in many gardens. They are seldom well managed, either in point of arrangement or in the evolution, by pruning, of picturesque effect. Very often they are huddled together promiscuously, and grow up into the shape of huge sheaves of rushes. With judicious management, there is not a finer object in the vegetable kingdom than the common Lilac (*Syringa vulgaris*), or the hybrid Varin (*S. Rathomagensis*). Even the old Guelder-Rose (*Viburnum Opulus*) is worthy of the poet's eulogy; the "scentless rose," which he describes as "tall,"

"And throwing up into the darkest gloom,
Of neighbouring cypress, or more sable yew,
Her silver globes, light as the foamy surf
That the wind severs from the broken wave."

It would lead us into disproportioned detail to specify a tithe of those shewy shrubs which should be dear to every floriculturist. Suffice it to name *Ribes sanguineum*, *Daphne mezereum*, *Spartium* of many species, *Cytisus*, *Amygdalus*, and *Pyrus*. The *Ribes speciosum*, or *Fuchsia*-flowered gooseberry, seems to require the protection of a wall, but deserves it. The fine suffruticose plant *Pæonia Moutan*, requires the most sheltered position in the shrubbery, where, in May and June, its flowers excel all others in magnificence. From such a list as that published by Mr Loudon, any one might form such a collection as, when properly arranged, would produce all the variety and beauty expected from the shrubbery.

There are many fine climbing shrubs, such as the species of *Clematis*, and of *Lonicera* or *Honeysuckle*. Others, though not precisely of this class, are much beholden to the shelter of a wall, such as the beautiful *Magnolia conspicua*, and *Edwardsia tetraptera* and *microphylla*. Among those of recent introduction, may be noticed *Glycine Sinensis* and *Eccremocarpus scaber*. The numerous species or varieties of *Fuchsia*, when planted against a wall, or even in the open ground, and shaded with an occasional covering in winter, convey to us a better idea of the riches of Chilian vegetation, than when they are confined to the shelves of the greenhouse. Many roses are also well adapted for walls, such as the varieties of *Noisette*, *Boursault*, and the different species from China.

A separate compartment, called the Rosary, is generally devoted to the cultivation of roses. It is often of an oval form, with concentric beds, and narrow intervening walks of grass or gravel, but it may assume any configuration which is suited to display this favourite plant. Of the thousand varieties of roses which exist in the nurseries, we pretend not to give any selection. It may, however, be remarked, that in planting the Rosary, care should be taken to classify the sorts according to the sizes and affinities, otherwise the effect will be much impaired. The climbing sorts may be advantageously introduced, being trained to pillar-like trellises. When the rosary is extensive, it is judicious to intersperse some of the most showy hollyhocks; for thus the beauty of the quarter is maintained in the later months of autumn, when the roses are chiefly past. Of late years, quantities of standard roses have been imported from the Continent. These are the finer sorts, budded on tall stocks of the wild species, such as *R. villosa* and *canina*. They are well adapted to stand singly on the little lawns in flower-gardens, or to break the uniformity of low flower borders.

Flower Garden. All shrubs nearly may be propagated by layers, some by budding or grafting, many by separating the roots. In planting, shrubs may be arranged either singly or in masses: the latter method is perhaps the most efficient in the production of effect, but it should not be very servilely adhered to, as it is apt to beget monotony. Some kinds should never appear in masses: The white Portugal broom, for instance, when so arranged, gives a limy tint to a garden. Perhaps it is better that groups should contain a predominance of one shrub, set off by a few others of a contrasting figure or colour, than that they should be entirely homogeneous.

Herbaceous Plants.—Common perennial flowers, whether strictly herbaceous or bulbous, afford the principal materials for floral decoration. Botany supplies, as it were, the colours for the picture, and gardening grinds and prepares them for use. The painting is continually varying, and new shades are arriving and departing in succession. The least consideration of the subject will suggest the rule, that in planting flowers they should be arranged according to their stature, otherwise many of the most beautiful little flowers would be lost among their taller compeers. The lowest plants should therefore stand next the margin of the border or parterre, and they should increase in height as they go back. To produce a full shew, a profusion, just not amounting to crowding, is requisite. The flower-plots should present a regular bank of foliage and blossom, rising gradually from the front; but as this might convey an idea of too great precision, a few *staring* plants, on the same principle as those employed in greenhouses, should be thinly scattered over the surface. These may be shrubs, or any tall showy plant, such as *Bocconia cordata*, *Papaver bracteatum*, *Gladiolus Byzantinus*, or *Lilium candidum*. The management of colour is more difficult. When the length of the flowering season is considered, it will be obvious that it is impossible to keep up the show of a single border or plot for six months together, and consequently that much of the labour employed in mixing colours is mispent, since plants, as they are commonly arranged, come dropping into flower one after another; and even where a certain number are in bloom at the same time, they necessarily stand apart, and so the effects of contrast, which can be perceived only among adjacent objects, are entirely lost. To obviate this defect, it has been recommended that ornamental plants should be formed into four or five separate suites of flowering, to be distributed over the garden. Not to mention the more vernal flowers, the first might contain the flora of May; the second that of June; the third that of July; and the fourth the tribes of August and the following months. These plants should be kept in separate compartments, arranged either singly or in masses; but the compartments themselves should be so intermingled, as that no particular class should be entirely absent from any one quarter of the garden. The May parterres should, however, chiefly occur in the vicinity of the greenhouse or conservatory, or, when these are absent, in a warm sunny situation. The flowerings of June and July, as being highly shewy, should occupy the most conspicuous parts of the garden. The autumnal perennials, not being so imposing, may retire into the more secluded situations, as they are supplanted by the superior brilliancy of the annuals, which fill the vacant beds of florists' flowers, or are scattered over the faded clumps of May and June.

Before attempting to plant, the floriculturist would do well to construct tables or lists of flowers, specifying their respective times of flowering, their colours, and altitudes. These tables, when skilfully used, would prevent mistakes, produce a greater facility of execution, and put the colours nearly as much under control as they are on the painter's pallet. To diversify properly and mingle well together the reds, whites, purples, yellows, and blues, with all their

Flower
Garden.

intervening shades, requires considerable taste and powers of conception; but if success is not attained in the first attempt, inaccuracies should be noted, and rectified at the proper time next season. Certain series of colours have been given, but these it is needless to mention, as it is quite immaterial whether the first flower in a row be red or white. The principal object is to preserve an agreeable contrast; and as at particular seasons a monotony of tint prevails, it is useful at such times to be in possession of some strong glaring colours. White, for instance, should be much employed in July, to break the duller blues and purples which then preponderate. The orange lily, too, is very effective at that season. On the other hand, yellows are superabundant in autumn, and therefore reds and blues should then be sought for.

Besides their vividness of colour and elegance of form, there are other qualities which render plants desirable in the flower-garden. Whoever has visited a botanic garden, must have been sensible of an interest excited by the curious structure or by the scarcity of some plants. Even quaintness of form is deserving of attention. The writer of this article has seen *Allium fistulosum* (the common Welsh onion) making a conspicuous figure in a flower-garden; and he remembers well a plant of sea-kale (*Crambe maritima*), which the good taste of the owner had introduced into the parterre, to the great disturbance of the ideas of the gardener. At the same time, it must be admitted that such expedients should be employed with reserve. No handsome plant should be rejected because it is common, nor any inconspicuous weed preserved merely because it is scarce. The flower-gardener should have a small nursery for the propagation of finer plants, to be transferred into the borders as often as is required.

We shall enumerate merely the names of a few of the most shewy flowers, adapted to the British flower-garden.

Vernal Herbaceous Plants.—*Helleborus niger*, *lividus*; *Eranthus hyemalis*; *Hepatica triloba* var.; *Primula vulgaris* var., *veris*, *elatior*, *marginata*, *helvetica*, *nivalis*, *viscosa*, *integrifolia*, *cortusoides*; *Cortusa Matthioli*; *Soldanella alpina*, *Clusii*; *Viola odorata*, *tricolor*, *biflora*, *altaica*; *Dodecatheon Meadia* vars.; *Orobis vernus*; *Adonis vernalis*; *Omphalodes verna*; *Corydalis lutea*, *longiflora*; *Sanguinaria canadensis*; *Iris pumila*; *Anemone apennina*, *Halleri*, *pulsatilla*.

Vernal Bulbous Plants.—*Galanthus nivalis*; *Leucoium vernum*; *Crocus*, species; *Cyclamen coum*, *vernum*; *Corydalis bulbosa*; *Erythronium Dens canis*; *Narcissus Pseudo-narcissus*, *moschatus*, *odorus*, *Jonquilla*, &c.; *Fritillaria imperialis*, *meleagris*, *persica*; *Gagea lutea*; *Tulipa sylvestris*; *Iris persica*; *Trillium grandiflorum*, &c.; *Scilla verna*, *præcox*, *bifolia*, *sibirica*.

Herbaceous Plants flowering in May. *Anemone narcissiflora*, *sylvestris*, *dichotoma*; *Primula farinosa*, *scotica*; *Convallaria majalis*; *Uvularia grandiflora*, *perfoliata*; *Phlox divaricata*, *subulata*, *setacea*, &c.; *Asphodelus luteus*, *ramosus*; *Draba Aizoides*; *Viola cornuta*, *obliqua*; *Gentiana verna*, *acaulis*; *Lupinus polyphyllus*; *Gaillardia bicolor*; *Iris florentina*, *cristata*, &c.—**Bulbs:** *Leucoium æstivum*, *Scilla non-scripta*, *italica*, &c. *Hyacinthus monstrosus*; *Muscari moschatum*, *botryoides*, *comosum*; *Narcissus Bulbocodium*, *poëticus*, &c.

June—Herbaceous Plants. *Pæonia officinalis*, *albiflora*, *corallina*, *Humii*, &c.; *Dianthus*, species; *Geranium sanguineum*, *Lancestricense*, *Wallichianum*, *striatum*, &c.; *Monarda didyma*, *Kalmiana*; *Papaver bracteatum*; *Saxifraga*, species; *Spiræa*, species; *Mimulus luteus*, *moschatus*; *Trollius Americanus*, *europæus*; *Lysimachia verticillata*; *Veronica latifolia*, &c.; *Geum coccineum*; *Aconitum napellus*, &c.; *Potentilla nepalensis*, &c.—**Bulbs:** *Allium Moly*, *Gladiolus byzantinus*, *communis*; *Lilium Pomponium*, *bul-*

biferum, *aurantiacum*, *monadelphum*, *penduliflorum*, *concolor*, &c.; *Iris Xiphium*, *Xiphoides*, &c.

July—Herbaceous Plants: *Phlox intermedia*, and many other species of that fine genus; *Pentstemon*, numerous species; *Cenothera*, various species; *Campanula persicifolia*, &c.; *Asclepias amœna*, *syriaca*; *Iris fulva*, *pallida*, *variegata*; *Gentiana lutea*, *asclepiadea*, *cruciata*, *septemfida*, &c.; *Chelone obliqua*, *barbata*, *Lyoni*.—**Bulbs:** *Lilium martagon*, *canadense*, *tigrinum*, *superbum*, &c.; *Gladiolus cardinalis*, *Tigridia pavonia*, *Commelina coelestis*, *Cyclamen hederifolium*.

Autumnal Herbaceous Plants: *Phlox decussata*, *pyramidalis*, *tardiflora*, &c.; *Lobelia cardinalis*, *fulgens*, *splendens*, &c.; *Aster sibiricus*, *amellus*, *pulcher*, &c.; *Eschscholtzia californica*; *Solidago*, several species; *Aconitum japonicum*, *volubile*, *variegatum*; *Gentiana Saponaria*; *Pentstemon*, several species.—**Bulbs:** *Colchicum autumnale*; *Crocus nudiflorus*, *serotinus*; *Tritonia pallida*, *media*.

It is with regret that we thus confine ourselves to a dry list of border flowers; but to do them any thing like justice, would require many pages. Within the last few years great accessions have been made to our stores. The *Lupines* and *Pentstemons* from the Columbia River, the *Verbenas* and *Calceolarias* from South America, and the *Potentillas* and *Geraniums* from Nepal, have in a great measure changed the face of our flower gardens. While our riches have increased, the difficulty, as well as the necessity, of making a selection have increased also.

Most herbaceous perennial plants are propagated by parting the roots, or by cuttings; but some most conveniently by the sowing of seed.

Biennial Plants. Plants whose existence is limited to two years, in the latter of which they flower and then decay, are called biennials. Many of them possess considerable beauty; and by their easy propagation, and rapid growth, they afford a ready means of decorating borders. The following may be considered most worthy of notice: *Agrostemma coronaria*; *Antirrhinum majus*; *Hedysarum coronarium*; *Lunaria biennis*; *Campanula media*; *Cenothera sinuata*, *biennis*; *Verbascum formosum*, *Hesperis matronalis*, *Scabiosa atropurpurea*, *Mathiola simplicicaulis*. When a very desirable variety is procured, such as the striped *Antirrhinum majus*, attention should be paid to the striking of cuttings during the summer, as the only means of continuance.

Biennials are sown in beds in the end of spring, and are generally transplanted in the course of the autumn, into the places where they are intended to stand, that they may be confirmed before winter, and shoot up readily into flower in the following summer.

Annual Plants.—Many of the annuals species, though of fugitive duration, are possessed of much beauty of hue and elegance of form. They are further valuable from their pliability, so to speak, and the promptitude with which they may be used. They are besides of easy culture, many requiring nothing more than to have the seeds sown in the spot where they are to grow. Annuals may be divided into three classes, the *hardy*, the *half-hardy*, and the *tender*. The first class, as stated above, are sown at once in the ground which they are to occupy; the *half-hardy* succeed best when aided at first by a slight hot-bed, and then transplanted into the open air; the *tender* are kept in pots, and treated as greenhouse or stove-plants, to which departments they properly belong. It is scarcely necessary to remark that the *hardy* and *half hardy* sorts may be grown either in patches or in beds, and are subjected to all the rules which regulate the disposition of common border flowers.

Hardy Annuals.—*Adonis autumnalis*; *Iberis umbellata*; *Knautia orientalis*; *Alyssum*, several species; *Linaria*, various species; *Delphinium Ajacis*, *consolida*; *Silene Ar-*

Flower
Garden.

Flower
Garden.

meria; *Campanula speculum, Lorii*; *Lavatera trimestris*; *Malope trifida*; *Hibiscus trionum, bifrons*; *Nolana*, various species; *Papaver somniferum*, numerous varieties; *P. Rhœas*, varieties; *Gilia capitata, tricolor*; *Collinsia grandiflora*; *Kaulfussia amelloides*; *Clarkia pulchella, elegans*; *Oenothera rosea, rosea-alba, tenella, Lindleyana, Romanzovii*; *Rudbeckia amplexicaulis*; *Senecio elegans*; *Mathiola annua*; *Lupinus*, several species.

Half-hardy Annuals.—*Callistemma hortense*; *Lopezia racemosa*, *Tagetes patula, erecta, racemosa, &c.*; *Zinnia elegans, pauciflora*; *Xeranthemum annuum, Helichrysum fulgidum, Chrysanthemum carinatum*; *Amaranthus caudatus*; *Schizanthus pinnatus, porrigens, Grahami, Hookeri*; *Salpiglossis atro-purpurea, straminea*; *Petunia nyctagini-flora*; *Mirabilis Jalapa*.

Tender Annuals.—*Impatiens Balsamina, Browallia elata, Celosia cristata, Gomphrena globosa*; *Solanum melongena*; *Mesembryanthemum crystallinum*.

We have been able to enumerate only a small selection of species, out of a multitude which is continually receiving accessions. Many of the sorts mentioned above have been introduced during the last ten or fifteen years; and we doubt not that, in an equal period from the present, many more will come into notice.

Before leaving this part of the subject, it may be proper to mention, that it is now the practice of some florists to grow and treat as annuals, or rather as biennials, great quantities of the more hardy *Pelargonium*, *Verbena*, *Salvia*, *Fuschia*, *Hemimeris*, and other genera. Mr James Smith at Hopetoun House, every season propagates, by cuttings or seeds, several hundreds of these plants. Grown in moderate-sized pots, they are kept in frames or cold vineries during winter. About the end of May, or as soon as there is no longer any apprehension of injury from frost, the plants are taken out of the pots and plunged into the open ground, in any warm sunny spot or clump in the flower garden. If the stems are long or naked, they are pegged to the earth. Towards the middle of July they begin to grow vigorously, and in August or September present, in luxuriance, at least, if not in magnitude, a better representation of their native vegetation than we see elsewhere in our gardens. Upon the approach of frost, they are, with the exception of the *Fuschias*, left to their fate, as it is easier to propagate new ones than to preserve the old. These plants, with the fine new annuals, and the gorgeous *Dahlias*, give a splendour to the autumnal flower garden which in former times it did not possess.

FLORISTS' FLOWERS.—This technical appellation has been restricted to certain flowers, which have been especial favourites with florists, and have consequently received a large share of their attention. Though possessed of great individual beauty, few of them are calculated to make a shew at a distance, and the arrangements requisite for their culture do not harmonize well with the general disposition of a flower garden. It is, therefore, desirable, particularly when considerable refinement is aimed at, that a separate garden, or a separate section of the garden, should be set apart for their culture. The more robust or less valuable varieties, however, which are often as shewy as the most esteemed, may be introduced into the general parterres. We shall notice the most considerable, in the order in which they naturally attract attention.

The Hyacinth. *Hyacinthus orientalis*, one of the most beautiful and fragrant of the spring flowers, is a native of the Levant; where it occurs abundantly, in form not unlike our common harebell. It has long been a favourite in the East: but has been brought to its present artificial perfection in Holland, chiefly since the beginning of last century. Many years ago it was successfully grown in the vicinity of Edinburgh, by Justice, one of the most ingenious horticulturists of his time: but it must be confessed that, in the

Flower
Garden.

culture of this flower, the British florists have never attained to the eminence of the Dutch, principally, however, as is alleged by some, from want of attention and pains-taking. According to Miller, the catalogues of the Haarlem florists used to enumerate 2000 sorts, some of which sold as high as L. 200 a bulb: they are now less numerous, and much less expensive.

Hyacinths are either single, semidouble or double, and exhibit a great variety of tint. In a fine flower the stalk should be tall, strong, and upright; the blossoms numerous, large, and suspended in a horizontal direction; the whole flower having a compact pyramidal form, with the uppermost blossom quite erect; the plain colour should be clear and bright; and strong colours are preferable to pale; when colours are mixed they should blend with elegance.

The hyacinth delights in a rich light sandy soil; and it is chiefly owing to the want of these qualities in his composts, that the British florist fails in the growth of this beautiful plant. The Dutch compost, as given by the Hon. and Rev. Mr Herbert in the *London Hort. Transactions* vol. iv., is the following: One-third coarse sea or river sand; one-third rotten cow-dung without litter; and one-third leaf mould. The natural soil is removed at least two feet deep, and the vacant space filled up with compost, previously prepared and well mixed. These materials retain their qualities for six or seven years, but the Dutch do not plant hyacinths upon the same place for two years successively. In the alternate years they plant it with narcissus or crocus. We may mention that, in the finest bed of hyacinths which we have seen in Scotland, a considerable portion of the soil was composed of *sleetch*, a sort of sandy and marly deposition from the ooze on the shores of the Forth.

According to Mr Main (*Villa and Cottage Florists' Directory*, p. 84.) St Crispin's day, the 25th of October, is the best time to plant the bulbs. They are arranged in rows, eight inches asunder, there being four rows in each bed; or, if more convenient, they may be placed in rows across the bed. The bulbs are sunk about three or four inches deep, and it is recommended to put a small quantity of clean sand below and all around them. As the roots are liable to be injured by frost, it is usual to cover the beds with decayed tan-bark, with litter or with awnings. The first may be considered the neatest during winter, but an awning is nearly indispensable in spring when the lingering colds prove exceedingly hurtful to the young flower-stems. The awning may be made of coarse sheeting or duck. As the flower-stems appear, they are tied to little rods, to keep them upright and preserve them from accident. In order to perfect the colours, the rays of the sun are admitted in the morning or in the evening, but the glare of mid-day and the cold of the night, are both excluded. When the season of blossom is over the awning is removed, or only replaced to keep off heavy rains. Much of the success, in the culture of this flower, depends on the subsequent management of the bulbs. It is the practice in Holland, about a month after the bloom, or when the tips of the leaves assume a withered appearance, to take up the roots, and, cutting off the stem and the foliage within half an inch of the bulb, but leaving the fibres, to lay the bulbs sideways on the ground, covering them with half an inch of dry earth. After three weeks, they are again taken up, cleaned, and removed to the store-room. In this country it is more common to allow them to stand till the leaves be withered, and then to take them up at once. In the store-room the roots should be kept dry, well-aired, and apart from each other.

Where forcing is practised, a few hyacinths may be forced in deep flower-pots filled with light earth, and, when coming into flower, transferred to the greenhouse, which they enliven at the dearest season of the year. In chambers, they

Flower
Garden.

are grown in water-glasses made for the purpose; or, with still greater advantage, in boxes filled with damp hypnum moss.

New varieties of hyacinths are procured by sowing the seed; but this is a tedious process, and seldom followed in this country. The established sorts are propagated by offsets or small bulbs, which form at the base of the parent bulb. Almost all the hyacinths cultivated in this country are imported from Holland, and the quantity of roots annually introduced must be very considerable.

The *Tulip*, *Tulipa Gesneriana*, is a native of the East, whence it was introduced in Europe about the middle of the 16th century. Gaudy as it is, it has no proper corolla, but only a calyx of six coloured sepals. About the year 1635 the culture of the tulip was very engrossing; and, indeed, the rage for possessing rare sorts had become so great in Holland, as to give rise to a strange species of gambling, known to the collectors of literary and scientific anecdotes by the name of *Tulipo-mania*, which has tended to bring unmerited discredit on this fine flower. At present the finer tulips are mostly of moderate price, and, though not to be met with in every garden, have yet some ardent cultivators.

There are some varieties, such as the early *Duc Van Thol*, the *Clarimond*, the *Parrots*, and the *Double Tulips*, which belong, properly speaking, to the general cultivator. In this country, the florists' tulips are arranged under four classes. 1. The *Bizarres*, which have a yellow ground marked with purple or scarlet. 2. The *Byblæmens*, with a white ground marked with violet or purple. 3. The *Roses*, with a white ground marked with rose-colour. 4. The *Self* or *Plain-coloured* tulips, which are of one uniform colour, and are chiefly valued as breeders. The *Byblæmen* class includes most of those tulips which are held in highest esteem in this country.

The properties of a fine late tulip, as specified by Mr Hogg, are the following, somewhat abridged. The stem should be strong, erect, thirty inches high: the flower large, of six petals (sepals), which should proceed almost horizontally at first, and, turning up, should form an almost perfect cup, with a round bottom, rather widest at top. The three exterior petals should be rather larger than the three interior ones: the limbs of the petals should be rounded, and freed from every species of serrature. The ground colour of the flower at the bottom should be clear white or yellow; and the various rich-coloured stripes, which are the principal ornament of a fine tulip, should be regular, bold, and distinct at the margin, and terminate in fine broken points, elegantly feathered or pencilled. There are other refinements upon which florists are not quite agreed: and it must be confessed, that their standard of excellence is somewhat factitious; for, to an uninstructed eye, though practised in the contemplation of other sorts of beauty, a tulip, which by them is looked upon as worthless, will often appear as fine as the choicest variety in the select bed.

Tulips prosper in a light sandy soil, richly manured with well rotted cow dung. Twenty inches depth of soil should be removed, and the vacant space filled up with compost. Some put alternate layers of light soil and cow dung. The bed should be filled up with compost about the middle of October, and in a fortnight, when the soil has subsided, the bulbs are planted in rows, distant eight or nine inches, and at the depth of about three inches. A little clean sand may be put around the bulbs. After planting, the bed may be covered over with tan, or with a hooped awning, as in the case of hyacinths. In spring, it is necessary to shield the leaves and flower-stalks from frost, and also from heavy rains; and, when in bloom, the flowers must be sheltered from the sun's rays, by which they are speedily injured. After the sepals have fallen, the seed-vessels are broken off close by the stem, to prevent the plant from exhausting itself in perfecting seed, and to direct its energies to the

forming of the new bulb. When the leaves have withered, the bulbs are taken up, dried, and stored until the planting season come round.

Tulips are readily propagated by offsets, which are taken off from the parent bulbs, and nursed in separate beds till they be full grown. New varieties are raised from seed; they are from five to seven years old before they flower, and, if raised from promiscuous seed, they often turn out worthless. Early in the 18th century, the distinguished Scottish cultivator, Sir James Justice (already mentioned as a most successful cultivator of hyacinths), was eminently successful in raising fine seedling tulips; and some skilful florists of our own day, such as Mr Strong of Brook Green, and Mr Oliver of Edinburgh, succeed in breaking their seedlings into colours equal to the finest byblæmens of Holland. They save the seeds from the first-rate sorts, the stigma of the intended parent flower having been fertilized with the pollen of some other fine variety. Seedling tulips, it may be remarked, present this anomaly for the first two or three years, that they form their new bulbs several inches below the old ones, so that an inexperienced cultivator is sometimes apt to miss them at the time of lifting.

The *Ranunculus* (*R. Asiaticus*) is, like many of the other florist's flowers, a native of the Levant, where it is a favourite of the Turks. It has sported into innumerable varieties, and those now in cultivation in this country are mostly of British origin. The plant is of small stature, furnished with decomposite leaves, and rising from a root formed by a bundle of little tubers.

According to the canons of floral criticism, the properties of a fine double ranunculus are the following: The stem should be strong, straight, and from eight to ten inches high, supporting a large well-formed blossom at least two inches in diameter, consisting of numerous petals, the largest at the outside, and gradually diminishing in size as they approach the centre of the flower, which should be well filled up with them. The blossom should be of a hemispherical form; its component petals imbricated neither too closely nor too much separated, and having rather a perpendicular than a horizontal direction. The petals should be broad, and have perfectly entire well-rounded edges; their colours should be dark, clear, rich or brilliant, either consisting of one colour throughout, or be otherwise variously diversified on an ash, white, sulphur or fire-coloured ground, or regularly striped, spotted, or mottled in an elegant manner.

The ranunculus requires a stronger and moister soil than most other flowers. Maddock prefers a fresh, strong, rich loam. Hogg recommends a fresh loam, with a considerable portion of rotted cow or horse dung. The Rev. Mr Williamson (*Hort. Trans.* vol. iv.) uses a stiff clay loam, with a fourth of rotten dung. "The bed should be dug from eighteen inches to two feet deep, and not raised more than four inches above the level of the walks, to preserve the moisture more effectually: at about five inches below the surface should be placed a stratum of two-year-old rotten cow dung, mixed with earth, six or eight inches thick; but the earth above this stratum, where the roots are to be placed, should be perfectly free from dung, which would prove injurious if nearer. The fibres will draw sufficient nourishment at the depth above mentioned; but if the dung were placed deeper, it would not receive so much advantage from the action of the air." Other florists have recommended to put the manure at least two feet and a half below the surface of the earth. The principal object, however, is to maintain throughout the bed a genial moisture; and this is to be done by avoiding all hot gravelly earths, and particularly soils that are apt to cake. The tubers are planted late in autumn or early in spring, in rows five or six inches apart, and three or four inches separate

Flower
Garden.

Flower
Garden.Flower
Garden.

in the rows. They should be so close that the foliage shall cover the surface of the bed, for in this way a salutary degree of shade and moisture is preserved. The autumn planted roots must be sheltered from frost by old tan or hooped mattings. When in flower, the plants are covered with an awning. When the leaves wither, the roots are taken up, dried, and stored.

Scarcely any florists' flower is more readily propagated from seed, or sooner repays the care of the cultivator. The seed is obtained from semi-double sorts, which are often of themselves very beautiful flowers. It is generally sown in boxes in autumn or spring. We have often seen it committed with success to the open ground. The young plants thus raised flower, often in the second, and always in the third year.

The *Anemone* of the flower garden includes two species, *Anemone coronaria*, a native of the Levant, and *A. hortensis*, a native of Italy. These have long shared the attention of the florist, and in his arrangements have generally been associated with the ranunculus, resembling it in its natural affinities and mode of culture. The single and semi-double flowers are considered nearly as fine as the double ones. The sorts are numerous, but at present are seldom distinguished by names. In a fine double anemone, the stem should be strong, erect, and not less than nine inches high. The flower should be at least two and a half inches in diameter, consisting of an exterior row of large well rounded petals, in the form of a broad shallow cup, the interior part of which should contain a number of small petals, mixed with stamens, imbricating each other. The colours should be clear and distinct, when diversified in the same flower, or striking and brilliant, when there is only one tint.

The soil and culture are so nearly the same as in the ranunculus, that it is needless to specify them. The plant continues longer in flower, and the leaves often remain so long green, that it is difficult to find a period of inaction in which to take up the roots. It has been recommended, that as soon as the bloom is over, the bed should be screened from rain by mattings until the leaves wither. As the roots are rather brittle, they require considerable care in handling. Anemones are easily raised from the seed. A bed of single anemones, it may be remarked, is a valuable addition to a flower garden, as it affords, in a warm situation, an abundance of handsome and often brilliant spring flowers, almost as early as the snowdrop or crocus.

The *Narcissus* is an extensive genus, including a great many interesting species and varieties. It belongs, however, rather to the botanico-florist than to the florist proper; but as it contains many plants of great elegance, it ought to receive more general attention. The Polyanthus *Narcissus* (*N. Tazetta*) affords the varieties which are chiefly cultivated by florists. These prosper in a rich light soil, containing a little dung. The roots should not be stirred more frequently than once in three years; and this remark applies also to *Narcissus Jonquilla* and *odorus*, the small and large jonquil, of which fragrant plants there should be beds in every flower garden. *N. Tazetta*, like the hyacinth, may also be grown either in pots or in water-glasses.

Iris. The species which peculiarly appertain to the florist are, *I. Xiphium* and *Xiphoides*, of both of which there are many beautiful varieties. They are of easy culture, succeeding in almost any kind of soil, and requiring to be moved only once in three or four years. The roots are not improved by being kept out of the ground; and perhaps the best method is, upon taking them up and freeing them from their shaggy skins, to replant them immediately.

Besides these, may be mentioned the Persian *Iris* (*I. Persica*), a low bulbous-rooted plant, with delicate blue or violet coloured flowers, and a high degree of fragrance. It

has long been cultivated by the Dutch, from whom bulbs are annually procured. It is grown in water, or in pots of nearly pure sand. When planted out, it requires to be guarded from frosts and rain. The Snake's-head *Iris* (*I. tuberosa*, *Bot. Mag.*) is also a fragrant species, and is more hardy than the preceding. Mr Denson, who has been very successful in the culture of this plant, recommends, in *Gard. Mag.* vol. viii., that it should be allowed to stand two or three years in succession on the same spot; when, "in July, take it up and divide the tubers, planting them soon as dug up, six inches deep in a compost formed of half friable mould, and half leaf mould, or old hot-bed dung, rotted to the consistence of soil. Let the situation be a dry bed or border, at the base of a wall, with a southern aspect, and plant the tubers close to the wall, or only a few inches from it." The Chalcidonian *Iris* (*I. susiana*), is the most magnificent species of the genus, and is well worth the labour of the cultivator. Its little stalk, a few inches high, is surmounted by a splendid corolla, the petals of which are nearly as broad as the hand, and are of a purple or black ground, striped with white. It loves a loamy soil, and a sunny exposure, and must be guarded from moisture and frosts in winter. For these three species Mr Loudon recommends the protection of a frame.

There are many other species which are worthy of a place in a select flower garden, and when well grouped in a peaty earth, form an agreeable appendage to a parterre. Of these we may mention the low creeping *I. cristata* and *pumila*, the more aspiring *prismatica*, *flexuosa*, *virginica*, *sordida*, *variegata* and *Swertii*, the taller *Sibirica*, *triflora* and *ochroleuca*, the broad leaved *Florentina*, *Germanica* and *sambucina*, and the stately *pallida*, which, for simple elegance, is not outshone by any of its compeers. This beautiful family is much beholden to David Falconer, Esq. of Carlowrie, who has introduced some of its most interesting members to the horticultural world in Scotland.

The *Lily*. Of the genus *Lilium* there are many species, some of which have not been exhibited to the extent of their capabilities in the flower garden. The old white *Lily* (*L. candidum*, L.) after supplying the poets with so much imagery, has retired into the modest station of a common border flower. The flaunting *Orange-Lily* (*L. bulbiferum*) may be allowed, if it pleases, to follow its example. *L. maritagon* may occupy the same place. The scarlet *Turk's Cap* (*L. Chalcidonicum*) is worthy of more care, as being more beautiful and more tender. It does not relish being disturbed, and it dislikes peat. On the contrary, the splendid *Tiger Lily* (*L. tigrinum*), which propagates rapidly by axillary bulbs, succeeds best in peaty soil. The same remark applies to the rarer *L. canadense*, and *superbum* (magnificent species) as well as to *L. concolor*, *Pennsylvanicum* and others, which ought to be more common in our gardens. *L. Japonicum* and *longiflorum*, in which the genus attains its greatest magnificence, unfortunately require a finer climate than ours, and must therefore be grown in pots under glass.

Omitting *Crocus*, *Fritillaria*, and some other bulbous genera, which are sometimes treated as florists' flowers, we proceed to one of the prime ornaments of the autumnal flower garden, the *Dahlia*, or *Georgina*, as it is called by some writers.

The *Dahlia*, of which there are two species (*D. variabilis* and *D. coccinea*), is a native of Mexico, from which it was introduced in 1789, but afterwards lost by our cultivators. It was reintroduced in 1804; but it was not till ten years later that it was generally known in our gardens. The first plants were single, of a pale purple colour, and though interesting, as affording a new form of floral ornament, they by no means held forth a promise of the infinite diversity of tint and figure exhibited by their successors. At present the varieties are endless, each district

Flower
Garden.

of the country possessing suites of its own, and cultivators occasionally raising at one sowing a dozen or two of sorts, which they think worthy of preservation. The results have been most propitious to the flower garden, from which, indeed, the Dahlia could nearly as ill be spared, as the potato from the kitchen garden.

The varieties of Dahlia may be classed under the following heads: 1. The *Common* or *Rose-shaped* form, under which the double sorts first appeared. This is by far the most numerous class, and perhaps the most beautiful. The dwarf sorts are in most repute. 2. The *Anemone-flowered*, having a radius of large petals, and a central disk of smaller ones, somewhat like the double anemone. 3. *Globe-flowered*, having small globular flowers, which are extremely double. They possess great intensity of colour, and, rising for the most part above the leaves, make generally as striking an appearance as those of a more massive efflorescence.

In a fine Dahlia the flowers should be fully double, always filling the centre; the florets should be entire or nearly so, regular in their disposition, each series overlapping the other backwards; they may be either plain or quilled, but never distorted: if, instead of being reflexed, the florets are recurved, the flower will be more symmetrical. The peduncles ought to be strong enough to keep the blossoms erect, and long enough to shew the flowers above the leaves. Bright and deep velvety colours are most admired.

New varieties are, of course, procured from seed. If sown in flower-pots, and aided by a little heat, the seedlings, speedily planted out, will flower the first season. Established varieties are propagated by dividing the large tuberous roots, but in doing so, care must be taken to have an eye to each portion of tuber, otherwise it will not grow. Sometimes shoots of rare varieties are grafted on the roots of others. A good method is to take cuttings close from the roots of the plants, as soon as they shoot up in the beginning of summer, and to strike them in small flower-pots. These will generally flower during the current season.

Dahlias succeed best in an open situation, and in rich loam; but there is scarcely any garden soil in which they will not thrive, with manure. They are, however, injured by being repeatedly planted on the same spot. They may stand singly like common border flowers; but have the most imposing appearance when seen in masses arranged according to their stature. Old roots often throw up a multitude of stems, which render thinning necessary. As the plants increase in height, they are furnished with strong stakes, to secure them from high winds. Dahlias generally flower till they are interrupted by frost in autumn. The roots are then taken up, dried, and stored in a cellar, or some other place, where they may be secured from frost and moisture.

The *Auricula* (*Primula Auricula*) is a native of the Alps and the Caucasus. It has long been an inmate of our gardens; and has generally been a favourite with those florists whose means and appliances are of a limited kind. Some of the most successful cultivators at present are among the operatives in the vicinity of Manchester and Paisley.

Besides the double varieties which have never been in much repute, Auriculas are classed under two divisions: the *Selfs* or plain-coloured, and the *variegated* or *painted* sorts. Professed florists confine their attention to the latter: it must, however, be confessed, that their criteria of fine flowers are often arbitrary, and that although many of their favourites are examples of undoubted beauty, the eye of the uninitiated would generally prefer the simpler hues of the self-coloured flowers.

The auricula, though now almost wholly an artificial plant, and strangely transformed from its original appearance, still loves a moist soil and shady situation. The florists' varieties are grown in rich composts, for the prepara-

tion of which numberless receipts have been given. We quote that of Mr Hogg, an experienced grower, as stated in his Supplement, p. 166. "One barrow of rich yellow loam, or fresh earth from some meadow or pasture land or common, with the turf well rotten; one barrow of leaf mould, one ditto of cow-dung, two years old at least; and one peck of river, not sea sand. For strong plants intended for exhibition, add to the same composition, as a stimulant, a barrowful of well decayed night soil, with the application of liquid manure before the top-dressing in February, and twice more, but not oftener, in March. A portion of light, sandy, peat-earth may be added, as a safe and useful ingredient, particularly for plants kept in low damp situations."

Auriculas may be propagated from seed. It is to be sown in January or February in boxes, which are kept under cover, and exposed only to the rays of the morning sun. When seed has been saved from the finer sorts, the operation is one of considerable nicety, as it not unfrequently happens that the best seedlings are at first exceedingly weak. They generally flower in the second or third year; and the florist is fortunate who obtains three or four good sorts out of a large sowing. The established varieties are increased by dividing the roots, an operation which is performed in July or in the beginning of August.

Fine auriculas are grown in pots about six inches in diameter. These are kept in frames, or stages constructed for the purpose. For winter use, perhaps there is nothing better than a common hot-bed frame, as this admits of an exact adjustment of air and temperature, things to which attention is absolutely necessary as the plants approach the flowering season. After the bloom is over, the pots may be placed on stages slightly elevated, and facing the north. Though not absolutely necessary, it is useful to have the power of sheltering them from long continued rains. It is usual every year to shift the plants, shortening the roots, and giving them a large portion of new soil, soon after the flowers have decayed. For more detailed information on this subject, we may refer to the well-known treatises of Maddock and Hogg.

The *Polyanthus* is supposed to be a seminal variety of *Primula vulgaris*; and is much cultivated by some florists. Like the auricula, it has sported into many hundred varieties. It is not necessary to give a detailed account of its culture, as it scarcely differs from that of the auricula. The polyanthus, however, is the hardier of the two, and seldom perishes from cold. It may be mentioned that there are several beautiful double varieties of the common primrose, which are deserving of a place in every garden.

The whole genus *Primula* merits the attention of the curious cultivator. *P. helvetica* and *nivalis* adorn the flower borders in spring with their abundant trusses of blossom. *P. marginata*, when planted in a shady situation, is equally lavish of its pale and delicately beautiful flowers. *P. viscosa* and *integrifolia*, with their intense colours, are the ornaments of the alpine frame; or, with *P. longifolia*, *farinosa*, and *Scotica*, may be plunged into the margin of the American border. A supply, however, should be kept in pots. Besides these we might name *P. cortusoides*, *Pallasii*, *Palinuri*, and others. The curious *P. verticillata*, and the splendid *P. Sinensis*, are inmates of the greenhouse. The florist of simple tastes will love them all.

The *Carnation* (*Dianthus caryophyllus*) has long been a favourite flower, not only for the beauty but for the delightful fragrance of its blossoms. It is a native of Germany, and it is occasionally found in an apparently wild state in England. The cultivation of it, however, is by no means easy, and calls forth all the resources of the florist. The varieties, which are very numerous, have been arranged under three heads: *Flakes*, having two colours, with their stripes running quite through and along the

Flower
Garden.

Flower
Garden.

petals; *Bizarres*, irregularly spotted, and striped with not fewer than three colours; *Picotees*, spotted, with serrated or fringed petals. Mr Hogg, who has written a treatise expressly on this flower, has given a catalogue of nearly 350 sorts.

Carnations are propagated by layers or pipings: the former method is most practised, but with some sorts piping, it is said, should be preferred. Layering is performed when the plant is in full bloom. Proper shoots are selected; a few of the lower leaves are then removed; an incision is made a little below a suitable joint passing up through it, and the shoot is then pegged down and covered with some fresh soil, the tip being left above ground. Layers are generally found to be rooted in about a month after the operation has been performed. Pipings are little cuttings, separated at a joint, and planted thickly under bell-glasses on a slight hot-bed. They require great attention, and are precarious in their success, but form excellent plants.

Numerous directions have been given respecting composts for carnations. We abridge those of Hogg, who is principal authority in this matter. Take three barrows of loam, one and a half of garden mould, ten of horse-dung, and one of coarse sand; let these be mixed, and thrown into a heap, and turned over two or three times in the winter, particularly in frosty weather. Towards the end of November a barrow-load of lime is added while hot, to aid in the decomposition of the soil, and destroy worms. For the varieties which are liable to sport, he recommends a poorer compost.

The more robust carnations are planted out in beds or singly in the flower garden; but the finer and tenderer sorts are grown in pots of about a foot in diameter. The time of potting is about the end of March. When the flower-stems shew themselves, they are furnished with rods, to which they are tied as they lengthen, to prevent their being broken by the wind or other accident. When the plants begin to expand their blossoms, they are removed to a stage calculated to exhibit their beauties. Some florists attach ligatures of matting to the flower-buds, in order to prevent irregular bursting, and even arrange the petals, by removing distortions with scissors.

New varieties are raised from seed. The seed of the hardier double or semidouble sorts often affords a very beautiful bed of flowers, and should not be neglected by those who have the command of extensive flower gardens.

The *Pink* is considered by botanists as merely a variety of the preceding. It is, however, very distinct in its character, and constant in its habits. It is one of the mechanics' flowers, and is cultivated most extensively in the neighbourhood of some of the manufacturing towns. Its simple elegance does credit to the taste of those who select it for their favourite; and it deserves a place in the garden of the highest as well as of the lowest in the land. Pinks are numerous, the growers at Paisley enumerating about three hundred varieties. Those are preferred which have the limb of the petals nearly entire, and are well marked in the centre with bright crimson or dark purple.

Pinks are mostly propagated by pipings in slight hot-beds or under-hand glasses; and when proper attention is given to the due admission of air, they generally succeed. Occasionally rare sorts, which are scantily furnished with grass, are propagated by layers. This flower does not require such elaborate composts as some others, but it likes fresh light soils, well manured with decayed cow dung. Not more than two years of blooms should be taken from the same bed, and it is the practice of most florists to have a new bed every year. The flower stalks are supported by small sticks. As in the carnation, ligatures of matting, or collars of card, are sometimes applied to the calyces of the flowers: but this practice, however it may be followed by those who judge according to the technical "criteria of a

fine flower," will scarcely be adopted by any who have an eye for natural beauty.

The genus *Lobelia* may now be regarded as affording a group of florists' flowers. *L. Cardinalis*, the cardinal flower, has long been a valued but somewhat rare plant. It is propagated by seed or by off-sets. *L. fulgens* is a more showy species, which, when potted and treated as a tender annual, forms a magnificent plant. It also succeeds perfectly well in the open borders. Being a semi-aquatic, it may be preserved during winter in springs or cisterns. We have seen quantities kept most successfully at the mouth of an Artesian spring at Hopetoun House. *L. splendens* is also worthy of notice. Besides the quaint *L. tupa*, there are many other species, particularly the blue and yellow procumbent sorts, which merit a place in every collection of fine flowers.

It would lead us too much into detail to speak minutely of *Calceolaria*, *Phlox*, *Chelone*, *Pentstemon*, *Oenothera*, and other genera, which approach the character of florists' flowers. To have them in perfection, they should be kept in beds by themselves: and we are persuaded that, were a moiety of the care bestowed upon some of the preceding flowers, which are conventionally supposed to belong peculiarly to the florist, expended on them, they would amply repay the labour of the cultivator.

The *Chinese Chrysanthemum* (*Chrysanthemum sinense*), from the peculiar culture which it now undergoes, may be considered to belong to this department of flowers. It is a native of China, and though introduced many years ago, its ornamental capabilities have only recently been brought into notice. Flowering in November and December, it fills up, with its many coloured blossoms, the blank of a most dreary season, and affords the means of decorating greenhouses, conservatories, and dwelling-houses, when almost all other means of embellishment fail. Forty varieties have been enumerated by Mr Sabine in the London Horticultural Memoirs, but it is believed that there are many others not yet introduced from China. The *Chrysanthemum* is hardy enough to live in the open air, but it requires the shelter of a wall, and from the lateness of its flowering, it is only the early varieties that, even in fine seasons, are permitted to unfold their blossoms. It is seen in its beauty only when grown in pots. Yearly plants are preferred. In the beginning of April, cuttings of the last year's shoots, about three inches long, are put singly into small pots, filled with soil composed of one half bog earth or leaf mould, and one half pure sand. Their growth is expedited at first by gentle heat. In about a month they are rooted and are put into a cold frame, in which they are kept till the beginning of June, when they are put into larger pots, and set out in some airy situation. About this time the tops of the plants are pinched off to make them bushy, but no more side shoots are allowed to remain for flowering than the plants are likely to be able to support. In August they are again shifted into larger pots, filled with strong rich soil. During the whole season, the pots are frequently moved to prevent the roots from striking through, and they are never plunged. Mr Monro of the Lond. Hortic. Garden, whose method of culture we have been describing, recommends liquid manure to be applied from time to time in summer and autumn. Other cultivators, in order to have a greater succession of flowers, and a variety in the stature of the plants, strike cuttings at two seasons, in March and in May, and propagate by layers in August. In the beginning of winter the plants are put into a cold frame or vinery, and they are brought into a milder temperature as they are wanted. To produce large showy plants, a few of the *chrysanthemums* of the former year may be selected, and, being freed from suckers, and having the mould shaken from their roots, may be repotted and shifted repeatedly during the summer and autumn.

Flower
Garden.

BOTANICAL STRUCTURES.

Glazed houses, for the reception and culture of exotic plants, though sometimes placed in connection with similar structures in the forcing department, are now almost universally regarded as appendages of the flower garden. In the hands of architects they have assumed a great variety of forms. We shall confine ourselves to the exhibition of the principle of the most important of these, and shall limit our remarks to the Greenhouse, the Conservatory, and the Stove.

The *Greenhouse* is intended to afford a winter and partly a summer shelter to the less tender classes of exotic plants grown in pots. Fig. 5, Plate CCXCIII., exhibits the old *lean-to* greenhouse. The general form of the house is that of a vinery with pretty lofty front glass. The main part of the area is occupied by a stage rising in steps to receive the potted plants. At some height above the front flue is placed a narrow horizontal bench of trellis work to receive small plants which require to be near the light. The interior air is warmed by one or two flues, or other heating apparatus, according to its volume; but a temperature of 45° Fahr. during winter is sufficient. Sometimes greenhouses are constructed with span-roofs and a double stage. They may indeed assume any form which taste can suggest, provided there be a sufficiency of light, and the plants be not too far from the glass. The *heath-house* does not essentially differ from the greenhouse, but for it a span roof is certainly preferable.

In the *Conservatory* the chief plants grow in beds of earth sunk in the floor. Fig. 3, Plate CCXCIII. shews the principle of this species of house. The beds marked *b b* are filled with a light soil calculated for the plants which are to inhabit them. Fig. 4. represents the front elevation of the roof. Numerous varieties of this structure also have appeared, and some most sumptuous examples have been erected in the gardens of the nobility. With similar restrictions as in the greenhouse, the conservatory may be said to be capable of assuming any form.

The *Plant Stove* may be either a *dry stove* or a *bark stove*, or both combined, and is applied to the cultivation of tropical plants which require an elevated temperature. The dry stove may be considered as a greenhouse with a larger than usual apparatus for the production of heat. The bark stove is furnished somewhat in the manner of a pine stove, with a receptacle to contain a bed of fermenting tanners' bark into which the pots are plunged. In this country, stoves are regarded as belonging rather to the botanic than to the flower garden; they are extremely useful, however, in the latter, for, besides presenting the florist with many unusual forms of vegetation, they afford in summer a variety of beautiful plants, which, when in flower, may be introduced into the greenhouse.

Sometimes the various botanical structures are combined into one imposing assemblage, as that exhibited in Plate CCXCIII. Fig. 1, the ground-plan of which is given in Fig. 2 of the same plate; *a* being a palm-house; *b* for New Holland plants; *c* large greenhouse; and the intermediate spaces being occupied by dry stove, heath-house, and greenhouses. This mode is, of course, suited only for places of the first order, where splendour is the object, where every thing is on a great scale, and expense little regarded. In a vast proportion of cases economy must be studied; and in villa gardens the ornamental plant-house is very often attached to the library or the drawing-room. A good plan for such a glazed house may be found in the Gardener's Magazine, vol. vi. p. 664.

Greenhouse Plants.—This beautiful class of plants have become so numerous, that, in a sketch like the present, it

is impossible to give the names of even a limited selection. We may once more refer to Mr Loudon's tables in his *Encyclopedia of Horticulture*, or to his still more copious lists in the *Hortus Britannicus*, in both of which works much valuable information may be obtained. The recent increase of species makes the work of selection at once more necessary and more difficult; a work which it must be confessed is often negligently performed. Many of the finer sorts of woody plants are propagated with difficulty, and consequently, being high priced in the nurseries, are possessed in requisite abundance only where there is considerable liberality on the part of the proprietor. On the other hand, the species which strike easily are circulated by gardeners themselves, many of whom, by their own interest and resources, more than half fill their greenhouses without calling for the aid of their employers. To this cause may be ascribed the perpetuation of many mean looking plants, which, if hardy, would scarcely be tolerated in well-kept shrubberies, and certainly ought not to encumber the greenhouse.

Light mould produced by the rotting of turf from pastures, and reduced with sand if necessary, or enriched with leaf-mould, is well adapted for most greenhouse plants. Some require a mixture of peat earth: others thrive only in pure sandy peat. If more specific directions be wished, we would recommend the reader to have recourse to *Cushing's Exotic Gardener*, or to the more recent work by Sweet, entitled *The Botanical Cultivator*. The common means of propagation is by cuttings, inserted in earth or sand, and covered, if necessary, with bell-glasses. A few sorts are increased by grafting or layers. Nearly all may be raised from seed, large quantities of which are annually imported from abroad; and, it may be added, many greenhouse plants ripen their seed in this country.

Many of these plants require shifting and fresh earth twice a year; all of them should be repotted once a year at least. It is the common practice to examine their roots in spring or the early part of summer, and, removing the matted fibres, to put them into larger pots if necessary. As room is extremely valuable in limited greenhouses, it is desirable that the plants should be kept of a moderate size; and they are, therefore, rather to be under-potted than otherwise. Many of the free-growing plants require to be shifted again in August; at which period of the year, it is considered preferable to repot those which require to be disturbed only once a year. During the summer months, a great proportion of the inmates of the greenhouse are placed in the open air, on a spot paved or laid with ashes, to prevent the entrance of earth-worms into the pots, and not too much exposed to winds. Meanwhile, their place in the greenhouse is occupied by balsams and other tender annuals of a showy character. On the approach of winter the plants are again placed under cover. All that is necessary in the management of the greenhouse in winter, is to keep up a steady but very moderate temperature, to preclude the access of damp by regular airing in mild dry weather, and to attend to moderate watering where it may be needed.

Of late years, particular genera of plants have come greatly into vogue, and it would be an omission not to notice some of them. Among the foremost may be mentioned *Pelargonium*, with its affinities. This beautiful tribe has varied nearly as rapidly as the Dahlia; to the discomposure of some botanists, whose scientific logic has been brought into jeopardy. *Pelargoniums* are of easy culture, propagating readily by cuttings, and requiring only to be shifted from time to time. Equal to these in point of beauty of colour, and certainly superior in elegance of form, is the family of Cape heaths, the *Ericæ* of botanists. Of this genus there is said to be 600 species, considerably more than the half of which exist in our collections. Many heaths

Flower
Garden.

may be raised from seed, which occasionally ripens in this country: the most common mode of propagation, however, is by cuttings, and this in some species is attended with difficulty. Heaths require a peaty soil, and attention in watering. For further information, we may refer to the excellent little treatise of Mr M'Nab of the Botanic Garden, Edinburgh, whose success in this department is quite unrivalled, and in whose hands heaths attain a splendour which, we believe, they never reach in the environs of Table Mountain itself. The superb genus *Camellia* is the only other that particularly claims our attention. To the elegance of the finest evergreen it unites the beauty of the fairest rose. The *Camellia*, though a native of Japan, is not particularly tender, but from some peculiarities in its constitution, its culture requires a considerable degree of attention and care. Cuttings of the single red variety strike freely, and upon these as stocks, the finer sorts are grafted by inarching or side-grafting. The soil generally employed is a mixture of peat and light loam. Care must be taken not to allow the roots to become matted in the pots. The young plants should be shifted at least once a year; when old, and in large tubs, once in two years will be sufficient. It is found beneficial to apply a certain degree of heat while the plants are growing, and till they form flower-buds for the following season. To have *Camellias* in perfection, a house with a span roof should be appropriated for their reception. There are some splendid collections of this noble plant in the nursery-gardens in the neighbourhood of London, particularly at Hackney, Vauxhall, and Clapton.

Conservatory Plants.—These are composed of a selection from the numerous inmates of the greenhouse. They should be naturally of an elegant form, capable in general of sustaining themselves, and somewhat hardy in their constitution. Many of the Australian plants, particularly the *Acacias* and *Banksias*, are well adapted for this purpose. The ascending *Proteas* of the Cape, *Clethra arborea* of Madeira, and many others of a similar habit, may likewise take their place in this department. To these may be added a few of the hardier Heaths and *Camellias*, together with a Myrtle or two, double flowering Pomegranate, Camphor-laurel, Tea-tree, and some of the varieties of the magnificent and consecrated *Rhododendron arboreum*. Any wall in the interior of the house may be furnished with a trellis, and covered with such climbing plants as *Lonicera Japonica*, *Cobbea scandens*, *Maurandia semperflorens* and *Barclayana*, and the trailing *Pelargoniums*. In the management of the conservatory, abundant air should be admitted, and care should be taken not to draw the plants; that is, not to cause them to become too tall and spindle-formed by over-crowding. They should be so pruned as to keep them comparatively short and bushy; but after all pains have been taken, the sorrowful time at length arrives, when they either disfigure themselves by pressing against the glass, or must submit to the no less distorting process of a violent amputation. To meet such exigencies, it is recommended that, wherever there is also a greenhouse, a few plants should be kept in training for the conservatory, and substituted in the room of any that become unmanageable. After all, the fourth, fifth, and sixth, summers of the conservatory will always be the finest: and when a longer series of years have gone by, and the plants have outgrown the space allotted to them, perhaps the best thing that can be done is to change the whole interior of the house, plants, earth and all. If this operation be anticipated, and for a year or two prepared for, sufficiently large plants may be had in readiness, and the appearance of a well-furnished house be attained in one or two seasons. It is scarcely needful to add, that the neatness which is so desirable everywhere in the flower-garden is absolutely indispensable in the conservatory.

Flower
Garden.

Stove Plants.—There are many beautiful plants, natives of tropical regions, which are cultivated in our stoves, but which, from the elevated temperature they require, can be only occasionally visited with pleasure. This may account for the fact that stoves are seldom found but in first-rate gardens, even where the price of fuel is inconsiderable. It is unnecessary to be minute respecting *dry stove* plants: their culture is precisely that of greenhouse plants, differing only in the degree of heat. Many dry stove plants are succulent, such as *Cactus*, *Aloe* and *Mesembryanthemum*, and of course require an arid soil, composed of a little light loam mixed with lime-rubbish or shivers. One of the most successful growers of the cacti was the late Mr Walter Henderson at Woodhall. The compost which he employed consisted of 1 part rotted dung, 1 rotted leaves, 1 heath mould, 1½ loam, and 1 coarse sand, all well mixed together; and the pot was nearly one-third filled with shreds, so as to form an effectual drain. Some of the species, such as *Cactus speciosus* and *Cereus flagelliformis*, are improved, and made to flower more freely, by being kept growing vigorously in the greenhouse during summer. The *bark stove* plants thrive best in the tepid vapour peculiar to the equatorial climes. In order to furnish bottom heat, a bark pit is prepared, into which the pots or tubs are sunk; and the atmosphere is heated by flues, by steam, or, what is better, by a circulation of hot-water. Along the front glass, and on the back wall, are shelves on which pots may be arranged, according to the necessities of light and shade. On the front shelves are occasionally placed shallow troughs, filled with old tan, leaves, or decayed wood, for the reception of the air-plants and other epiphytes. Small cisterns too are introduced to contain tender aquatics. Along the rafters some of the more elegant species of *Passiflora*, such as *P. quadrangularis*, may be trained; and through the branches of some of the woody plants, *Cuscuta*, *Tropæolum*, and other tender climbers, may be allowed to twine themselves. In the pit may be plunged some of the Palms, those princes of plants. In short, there is no end of those numerous tribes, "the potent sons of moisture and of heat," with which the teeming regions of the equator are filled; and no suite of stoves in this country, however extensive, can come up to the wishes of the botanist. The management of this department of floriculture is laborious and trying to the constitution. A strong heat, both in the bark bed and in the atmosphere, must be maintained; the air must be kept charged with vapour, and the plants require frequent shifting and repotting. For more detailed information as to the management of particular stove plants, we may again refer to Cushing, who, in his *Exotic Gardener*, has treated this subject with a skill and fulness that have not been surpassed, perhaps not equalled, by any of his successors.

CALENDAR.

JANUARY.

Kitchen Garden.—Sow early frame and Charlton pease in the beginning of the month, and dwarf marrowfat about the end of the month; early mazagan and longpod beans during the first and last weeks; onions, on very light soils; as also parsley, if not done in August, on a warm border; short-topped radish in two or three sowings, at a week's interval, in the same situation. In the last fortnight sow hardy green and brown Dutch lettuce.

Plant fruit trees, in general, in open weather, mulching the trees to protect them from the drought which may occur in spring. Plant shallot.

Prune all sorts of fruit trees in mild weather or in moderate frosts, nailing only in fine weather; wash those trees

Calendar. infested with insects, with soap-suds, flowers of sulphur, and tobacco liquor.¹

Forcing Department.—Prepare for making up hot-beds for early cucumbers and melons, at least where a pit heated with hot water is not in use. Sow salads, carrots, and kidney-beans on slight hot-beds. Sow pease in cold frames for transplanting. Force asparagus, sea-kale, and rhubarb, in hot-beds, in pits, in the mushroom-house, or in the open garden by covers surrounded with litter. Give air in fine weather, and water sparingly, to the pinery and cucumber-pit; and to other forcing houses, according to the progress of the trees. Attend to the forced kidney-beans and strawberries. Give abundance of air to the greenhouse, conservatory, and alpine frame, but little water. Begin to force roses, kalmias, rhododendrons, &c., and hardy flowers and bulbs.

Flower Garden.—Plant dried tubers and bulbs of border flowers, if not done in autumn; but roots of the finer florists' flowers ought to be deferred till next month.

Transplant herbaceous plants and evergreen shrubs in light soils, if not done in autumn; also deciduous trees, shrubs, and hedges. Lay edgings in fine weather.

Sow mignonette, stocks, &c., in pots; sow pease, and a few hardy annuals, on a warm border. Give stage auriculas and carnations abundance of air; but keep them rather dry, to prevent damping off.

FEBRUARY.

Kitchen Garden.—Sow beans and pease in the beginning and end of the month; a few early cabbages, to replace the last sowing in August; red cabbages and savoy in the last week. Sow also early horn carrot; Dutch turnip; onions for a full crop in light soils, with a few leeks. Sow chervil and fennel, and lettuce for succession, with radishes and round-leaved spinach, twice in the course of the month; small salads every fortnight.

Plant Jerusalem artichokes, garlic, horse-radish, and early potatoes. All sorts of fruit trees may still be planted. Strawberries may be planted about the end of the month. Transplant for seed, if not done before, all the brassica tribe, including cabbage, cauliflower, turnip, &c.; also carrots, onions, beet, celery, endive, leeks, and parsneps. Transplant to the bottom of a south wall a few of the pease sown in November for the first crop.

Prune apricots, peaches, nectarines, and plums, before the buds be much swelled; also apples, pears, cherries, gooseberries, currants, and raspberries, before the end of the month. Finish the dressing of vines, keep the fruit-room free from spoiled fruit, and shut it close.

Forcing Department.—Plant out melons and cucumbers on hot-beds and in pits, sowing more for succession. Sow carrots, turnips, and early celery; cauliflower, to be afterwards planted out. Plant early potatoes on slight hot-beds. Continue the forcing of asparagus, rhubarb, and sea-kale. Pine-apple plants require little air or water at this season, except young plants in dung-frames, which ought to be kept free from damp. Shift fruiting plants by the middle of the month, if not done in August. Continue the forcing of all sorts of fruits. Those who have not commenced sooner will find this one of the best seasons to begin. Be careful to protect the stems of vines that are outside of the forcing houses.

Let the greenhouse and conservatory have plenty of air in mild weather. Put in an extra quantity, if not done in autumn, of cuttings of Pelargoniums, Fuschsia, Salpiglossis, Calceolarias, Heliotropium, and Salvia splendens, for the flower garden. Sow stocks, a few tender annuals, and dahlia seed, on a slight hot-bed, or in pots.

Flower Garden.—In good weather plant dried roots, including most of the finer florists' flowers; continue the transplanting of hardy biennial flowers, and herbaceous plants, shrubs, and deciduous trees.

Sow in the last week mignonette, and hardy annuals, in a warm border, for subsequent transplanting.

MARCH.

Kitchen Garden.—Sow main crops of pease, beans, cabbages, onions, leeks, carrots, parsneps, Brussels sprouts, borecoles, lettuces, and spinach. In the beginning, and also in the end of the month, sow turnips and savoy. In the last fortnight sow asparagus, cauliflower, sea-kale, cardoons, celery, and most of the culinary aromatics, as dill, fennel, parsley. Small salads should be sown every ten days.

Plant early potatoes in the first week, and a main crop during the last fortnight. Jerusalem artichokes, sea-kale, asparagus, and pease raised in frames, may now be planted. Full crops of cabbages should now be planted out, and cauliflowers under hand-glasses. Propagate by slips the various pot-herbs, as mint, sage, savory, tansy, &c.

Fruit Garden.—Finish the planting and pruning of fruit trees before the middle of the month. Protect those coming into blossom. Begin grafting in the third week; dig and dress between the rows of gooseberries, currants, and other fruit trees, if not already done. Kill wasps when they first appear, for the death of every individual now is equal to the destruction of a colony in autumn.

Forcing Garden.—Proceed with the forcing of melons and cucumbers, giving air, and applying linings to maintain the proper temperatures. Examine pine-suckers and crowns, potting those that are kept in tan during the winter; repotting those that require large pots, and dressing the roots of such as are sickly; about the middle of the month, shift to the succession pit, and give a top-dressing to the fruiting plants; turn the tan, and add new bark to the pits, to keep up bottom heat. In the vinery and peach-house, attend to the keeping down of insects by watering; and promote the growth of the young shoots, by steaming in the evenings. Sow the seeds of capsicum and tomato.

Greenhouse.—More water may be given than formerly. Sow seeds of greenhouse and hot-house plants; also the different sorts of tender annuals; pot off those sown last month; shift greenhouse and stove plants; plant tuberose in pots for forcing. Begin to propagate greenhouse plants by cuttings.

Flower Garden and Shrubbery.—In the last week, sow hardy annuals in the borders, with biennials that flower the first season; as also perennials. Plant anemone and ranunculus roots. Transplant from the nursery to their final sites annuals sown in autumn, with biennials and herbaceous plants. Propagate perennials from root-slips and offsets. Protect tulips, hyacinths, and choice flowers, from severe weather. In the last week put into heat the finer sorts of dahlias, so as to spring them, and prepare them for propagation by

¹ We have not deemed it necessary to treat separately, or at length, of the means of destroying insects; many of the nostrums recommended proving very inefficient. The wash here mentioned is perhaps the best and simplest for the stems and branches of wall fruit-trees. Some prefer making it of the consistence of paint, and laying it on with a brush. One advice we would tender to all gardeners,—not to be anxious to kill the smaller kinds of the feathered songsters, the soft-billed warblers of the garden, which are often suspected of attacking blossom or fruit, when they are only picking off caterpillars or aphides, their favourite food. In hot-houses, the keeping of the walls and frame-work clean, by frequent white-washing and painting, is very important; and much benefit results from occasionally filling them with the smoke of tobacco-paper, and then thoroughly syringing.

Calendar. cuttings and by division of the roots. In the first week finish the planting of hardy deciduous trees and shrubs; evergreens by the middle; but some of the hardier sorts may still be planted towards the end of the month. Likewise finish the pruning of all deciduous trees and hedges as soon as possible. Attend to the dressing of shrubberies, laying of turf-edgings, and to the state of gravel walks.

APRIL.

Kitchen Garden.—Sow asparagus, sea-kale, beet, salsify, scorzonera, skirret, carrots, and onions on heavy soils; also pease, beans, turnips, spinach, celery, cabbages, savoy, and German greens, for succession. Sow broccoli and kidney beans both in the second and in the last week; and small salads should be sown twice or thrice during the month; also all sweet herbs, if not done last month.

Plant cauliflower, cabbages, sea-kale, lettuce; and finish the planting of the main crops of potatoes. Propagate all sorts of pot-herbs, and attend to the hoeing and thinning of spinach, onions, turnips, &c. Earth up cabbages, cauliflower, pease, beans, and early potatoes. Stake up pease; blanch sea-kale and rhubarb in the open air, by covering with straw or leaves.

Fruit Trees.—No pruning ought to be left undone till this period; stone fruits, in particular, are much injured by spring pruning. If vines have been neglected, rubbing off the buds that are not wanted is safer than pruning. Protect the finer sorts of fruit-trees on the walls.

Forcing.—Continue the preparation of succession beds and pits for cucumbers and melons. Sow gourds and basil. Pot love-apples and capsicums. Attend to the routine culture of the pinery, giving water and air when necessary. Keep up the bottom heat with linings and additions of new tan. In the forcing houses, from the variable state of the weather considerable vigilance is required in giving air. Keep down red spider (*acarus*) in the more advanced houses by frequent waterings. Continue the usual operations of disbudding and thinning of fruit, and take care to keep up the proper temperatures.

Greenhouse.—Still sow all sorts of tender annuals. Proceed with all necessary shiftings. Propagate rare and fine plants by cuttings or grafting. Pot off tender annuals, and cuttings of half-hardy greenhouse, plants put in in February for the use of the flower garden.

Flower Garden and Shrubbery.—Sow main or succession crops of annuals of all sorts; half hardy annuals in warm borders, or on slight hot-beds. Biennials and perennials should be sown before the middle of the month. Plant *Tigridia pavonia* and fine stocks. Finish the transplanting of herbaceous plants by the end of the first week. Protect stage auriculas and hyacinths from extremes of every description of weather; and tulips from hoarfrosts and heavy rains. Plant out tender deciduous trees and shrubs raised in pots. Remove part of the coverings of all tender shrubs and plants in the first week, and the remainder at the end of the month. Form and repair lawns and grass walks, by laying turf and sowing perennial grass-seeds.

MAY.

Kitchen Garden.—Sow small salads every week; radishes and lettuces thrice; spinach once a fortnight; carrots and onions for late drawing; kidney-beans in the first week and last fortnight. Pease and beans, cauliflowers, cabbages, Brussels sprouts, bore-calc, broccoli, savoy, and German greens, for late crops. Sow pumpkins and cucumbers on a warm border in the last week. Continue the various operations of hoeing and earthing up the different crops.

Fruit Trees.—Disbud peaches, nectarines, and other

VOL. XI.

early trees against the walls; also attend to the thinning of fruit. Give occasional washings with the engine to keep down insects. Pick caterpillars from gooseberries and wall trees on their first appearance. Mulch, if not done before, all newly planted fruit trees, watering abundantly in dry weather. Remove from raspberries and strawberries all suckers and runners that are not wanted.

Forcing.—Plant melons, and cucumbers, and some basil, on the hot-beds prepared for vegetables in February, and now free. Plant out pumpkins on dung-ridges, under hand-glasses. Sow late crops of cucumbers and melons; attend to the various particulars in their culture, heat, air, water, shade, and insects. Go on with the usual culture of the pinery; give abundance of heat and water, keeping down all manner of insects.

Greenhouse. Turn out all hardy plants about the middle, and the more tender at the latter end of the month. Sow tender annuals for succession; potting and shifting all those sown at an earlier period. Pot off, likewise, all rooted cuttings. Put in cuttings of the different desirable species which are now fit for that purpose. Sow a few hardy annuals and ten-week stock, &c. for late crops.

Flower Garden.—Sow annuals for succession; biennials in the last week, in the nursery compartment, for next year. Propagate by cuttings, dahlias, pansies, double wall-flowers, rockets, scarlet lychnis, and lobelias, by dividing the roots. Plant out, during the first week, dahlias, hardy pelargoniums, stocks, and calceolarias, protecting the dahlias from slight frosts. By the middle and end of the month, masses of the following plants may be formed with safety: pelargonium, heliotropium, fuchsia, salpiglossis, nierembergia, salvia, verbenas, bouvardia, erica, and lobelia. Protect tulips, ranunculuses, and anemones, from the mid-day sun, from rains, and winds. Remove the coverings from all tender plants in the open air.

Shrubbery.—Planting out of tender evergreens from pots may be continued, but any other kind of transplanting will be carried on at considerable risk, except in very moist and cloudy weather. Proceed with the laying down of lawns and gravel-walks.

JUNE.

Kitchen Garden.—Sow pease and beans for late crops. The kinds used for early crops are likewise best for this purpose. Sow salading every ten days; also carrots and onions for drawing young. In the beginning of the month sow endive for an early crop. In the first week sow turnips for succession; and in the third week for a full autumn crop. Scarlet and white runners for a late crop; cabbages for coleworts.

Plant full crops of broccoli, Brussels sprouts, savoy, German greens, and leeks; ridge out early celery, successional crops of cabbage and cauliflower. In the first fortnight of the month, plant cucumbers for pickling, in a warm border, placing hand-glasses over them. Pull and store winter onions.

Fruit-Trees.—Train and prune the summer shoots of all descriptions of wall and trellis trees. Standards do not require this, except those are trained *en pyramide* or *en quenouille*. Mulch and water fruit-trees and strawberries in dry weather, desisting from watering as soon as the fruit begins to ripen. Net over cherry-trees, to protect the fruit from birds. Destroy insects by frequent washings, and directing tobacco-smoke against them, or by strewing snuff (or the fine powder of tobacco) over them. In the first week, plant out love-apples in vacant spaces along the bottom of a south wall.

Forcing and Greenhouse Department. *Hot-beds and Pits.*—Proceed with planting melons and cucumbers raised from seeds and cuttings, for late crops. Keep up, by

Calendar. linings, the necessary temperatures for ripening of the fruits. Continue the cultivation of the pinery stated for last month; but, if you wish very large-sized fruit, and do not care about preserving suckers, remove the whole suckers from the stem and roots, and apply heat and water in abundance. Shift suckers and succession plants in the beginning and middle of the month, as the state of the plants may require.

Forcing-houses may have the same treatment as stated last month. Little water and a good deal of air must be given to those houses where the fruit is beginning to ripen. Those in which the fruit is past, ought to be constantly under a system of thorough ventilation.

The *Greenhouse* will now be occupied with tender greenhouse plants and annuals, and the more hardy plants from the stove, for here they will remain longer in flower. Shift, re-pot, and propagate all plants, fine perennials, biennials, or annuals, and cuttings of all sorts that are desirable. Sow fragrant or showy annuals, to flower in pots during winter.

Flower Garden.—Take up bulbs and tuberous roots, and dry them in the shade before you remove them to the store-room. Fill up with annuals and greenhouse plants those beds from which the bulbs and roots have been raised. After this season, keep always a reserve of annuals in pots, or planted on beds of thin layers of well-rotted hot-bed dung, from which they are easily removed with balls, to fill up any blanks which may occur in the border or parterre. Sow perennials, if neglected last month, to be planted out in the spring. Lay and pipe carnations and pinks in the end of the month.

JULY.

Kitchen Garden.—In the first week, sow pease for the last crop of the season. In the last week, sow yellow turnip for a full winter crop, and spinach for an early winter crop. Endive, for autumn and winter crops, in the beginning and end of the month; also successional crops of lettuce and small salads.

Plant full crops of celery, celeriac, endive, about the middle and end of the month; late crops of broccoli, cauliflower, and coleworts, in the last week. Gather and dry medical and pot herbs; also propagate such by slips and cuttings.

Fruit-trees.—Continue the summer pruning and training of all wall and espalier-rail trees, with the destruction of insects. Plant strawberries in pots, for forcing next winter. Propagate different sorts of fine fruit-trees, by budding on other trees, or on prepared stocks.

Forcing.—Attend to the pruning of melons and cucumbers, giving air and water, renewing linings, &c. Go on with the usual cultivation of the pinery, but withhold water from the plants when the fruit begins to ripen. Have the old plants with suckers on them put into a brisk bottom-heat, giving proper supplies of water; this will increase their size very much, and materially shorten the period of their coming into fruit. The forcing-houses ought to have the same treatment as stated for last month.

In the *Greenhouse*, little alteration will take place in the culture and management from that given for last month; necessary attention being paid to potting, shifting, and putting in cuttings, and giving abundance of water to the potted plants, both in the house and out of doors.

Flower Garden and Shrubbery.—Take up the remainder of tuberous roots, such as anemone, ranunculus, &c., finishing by the end of the first week; fill up their places, and any vacancies that may have occurred, with annuals from the reserve ground. Propagate herbaceous and other plants that have gone out of flower, by means of cuttings and slips; also roses and American shrubs, by laying, budding, or cuttings. Go on with the laying and piping of

carnations and pinks; attend to the staking and tying up **Calendar.** of dahlias and strong herbaceous plants.

AUGUST.

In the *Kitchen Garden*, sow winter and spring spinach in the beginning and about the end of the month; parsley and winter onions, for a full crop, in the first week; cabbages, cauliflower, savoys, and German greens, about the middle of the month, for planting out in spring; lettuce in the first and last week; small salads occasionally; black, Spanish, red and white queen radish, for winter crops.

Plant and earth up celery and endive. A few coleworts may still be planted.

In the *Fruit Garden*, proceed in the training and regulation of summer shoots of all fruit trees as directed for the three last months. Mat up; in dry weather, gooseberry and currant bushes, to preserve the fruit till late in the autumn. Every exertion must now be used by the gardener to preserve the ripening fruits on the walls from insects, and to destroy wasp nests.

Forcing.—The same routine of cultivation in hot-beds and pits may be proceeded in as stated for last month. Sow, and propagate by cuttings, in the beginning of the month, cucumbers, to be afterwards grown in hot water pits, or in boxes in the front of the pine-stove, for a winter crop. In the pinery most of the fruit will be cut by the middle of the month, when a general shifting of succession plants will take place; as also a potting of suckers; but these will be strengthened by being allowed to remain on the old plants until the end of this month. In the forcing-houses where the crops are past, part of the sashes may be removed, so as to permit thorough ventilation.

Greenhouse.—Attend to the propagation of all sorts of greenhouse plants by cuttings, and to the replacing in the greenhouse and stoves the more tender species, by the end of the month in ordinary seasons, but in wet weather in the second week. Sow half-hardy annuals, as Clarkia, Schizanthus, Coreopsis, &c., to flower during winter.

Flower Garden and Shrubbery.—Sow in the second and the last week, on a warm border of a light sandy soil, with an east aspect, for planting in spring, Clarkia pulchella and elegans, Coreopsis tinctoria, Oenothera Lindleyana, and rosea-alba, Collinsia grandiflora, Schizanthus pinnatus, &c. Auricula and Primula seeds in pots and boxes. Propagate all sorts of herbaceous plants by rooted slips; lay chrysanthemums; take off layers of carnations, pinks, and pansies. Transplant evergreens in moist weather, about the end of the month; and propagate them by layers and cuttings.

SEPTEMBER.

Garden.—Sow a few small salads for late crops; lettuce and spinach, if not done last month, for spring crops. Plant endive and lettuce. If broccoli be too strong or tall to withstand the winter, lift them and lay them nearly up to the neck in the earth. Lift onions, and lay them out to win on a dry border or gravel walk. Lift potatoes and store them.

Fruit Trees, &c.—Finish the summer pruning and training. Assist the maturing of the fruit, and, what is equally important, the ripening of the young wood for next year, of peaches and nectarines on hot walls, with fires during the day. Gather and lay up in the fruit-room with care the autumnal sorts of apples and pears. Plant strawberries for a main crop.

Forcing.—Take care that late crops of melons and cucumbers be not injured by damping, from getting too much water and too little air. In the pinery the usual routine of cultivation may be carried on; in the first week take off and pot all strong suckers, if not done in the middle of last

Calendar. month; the remainder may be taken off at the end of the month, and planted in old tan in a frame or pit prepared for that purpose. In this way they will be found to keep much better over the winter, and to be better supplied with roots, than if they had been potted, which ought never to be done after this season. Expel damp, and assist the ripening of late crops of grapes and peaches, with fires during the day. Prune early vines and peaches.

Flower Garden, &c.—Sow in the beginning of this month all half-hardy annuals stated for last month, if not done at that time. Sow also the different species of primula; and the seeds of all such plants as, if sown in spring, seldom come up the same season, but if sown in September and October vegetate readily the succeeding spring. Continue the propagation of herbaceous plants, taking off the layers of carnations, pinks, pansies, and chrysanthemums, by the end of the month. Plant evergreens; lay and put in cuttings of most of the hard-wooded sorts of shrubby plants.

OCTOBER.

Kitchen Garden.—Sow small salads and radishes in the first week; Mazagan beans and early frame pease in the last week. If the winter prove mild they will be somewhat earlier than those sown next month or in January.

Plant cabbages in beds or close rows till wanted in spring. Cauliflowers in the last week, to receive the protection of frames, or, at any rate, at the bottom of a high wall or hedge in a sheltered situation.

Store potatoes, beet, salsify, scorzonera, skirret, carrots, parsneps, by the end of the month.

Fruit Garden.—Such fruit trees as have dropped their leaves, may be transplanted. Protect fig-trees, if the weather prove frosty, as soon as they have cast their leaves. Cover late crops of grapes on hot walls with woollen nets or mats, to prevent injury from frost. Store and lay up very carefully during the month all sorts of apples and pears, the longest keeping sorts not before the end of the month, if the weather be mild. A part of them may be placed in a close cellar.

Forcing.—Assist hot-beds and pits with fresh linings, to keep up the declining heat of such beds as have not ripened off their crops. Give abundance of air in good weather. Gradually lower the heat of the pinery.

Dress vines and peaches; clean and repair the forcing houses and their flues.

Greenhouse.—Replace all sorts of greenhouse plants. Fill the pits with pots of stocks, mignonette, and hardy annuals for planting out in spring, along with many of the more hardy sorts of greenhouse plants. The whole ought to be thoroughly ventilated, except in frosty weather. Begin to force roses, hyacinths, and a few other bulbs, for winter and early spring decoration.

Flower Garden.—Sow a few pots of hardy annuals in a frame, or on a sheltered border, for spring use, as directed for August.

Plant the greater part of the common border bulbs about the end of the month, with a few anemones for early flowering. Transplant strong plants of biennials and perennials to their final situations.

Protect alpine plants, stage auricles, and carnations with glass frames; half-hardy greenhouse plants, such as fuchsias, &c. about the end of the month, with coverings of broom or spruce-fir, preferring the latter. Take up, dry, and store dahlias and tigridia tubers in the end of the month; pot lobelias from the open borders.

Transplant all sorts of hardy evergreens and shrubs, especially in dry soils, giving abundance of water. Put in cuttings of all sorts of evergreens, &c.

NOVEMBER.

Kitchen Garden.—Sow early from pease and mazagan beans, in the second week, for an early crop. Protect endive, celery, artichoke, seakale, with stable-litter or ferns; mulch asparagus with hot-bed dung; take up endive, late cauliflower, early broccoli, and lettuces, and lay them in an open shed, or in old cucumber and melon pits, which will protect them from frost, and afford a supply during winter. Force rhubarb and seakale in the open border, under boxes or cases, surrounded and covered with well-fermented stable dung. Plant all sorts of fruit trees in fine weather, giving an abundant supply of water to settle the earth about the roots. Commence and carry on the various operations of pruning and nailing when the weather may permit. Take off such late sorts of apples and pears as may remain on the trees, and lay them carefully past in the fruit-room; which place will require frequent examination, and the removal of all decayed fruit.

Forcing and Greenhouse.—In hot-beds and pits keep up the requisite degree of heat by frequent additions to the linings. Cucumbers and pines, on hot-beds, will require more than ordinary attention, to prevent them damping off from too much moisture. Where a circulation of hot water in pipes is employed for heating, the necessary temperature and dryness are much more under the control of the gardener. Force asparagus, rhubarb, and seakale, in the mushroom-house or pits.

In the forcing-houses, prune and train the trees; dig and dress the borders of such houses as have not been already done. Continue the forcing of roses, hyacinths, &c. The directions for the greenhouse and conservatory in January apply also to this month generally.

Flower Garden, &c.—Plant dried tubers of border flowers, but the finer sorts had better be deferred till spring. Protect such half-hardy plants as were not sheltered last month. Plant deciduous trees and shrubs as long as the weather continues favourable. Dig and dress such flower borders and shrubberies as may now be cleared of annuals and the stems of herbaceous plants.

DECEMBER.

Kitchen and Fruit Garden.—Sow a few pease and beans, as in November. Very few operations can be carried on during this month, with the exception of trenching and digging in dry weather.

Plant all sorts of fruit trees in mild weather. Proceed with pruning and nailing wall-trees, whenever an opportunity occurs. Examine the fruit-room every week, removing the fruit found in a state of decay.

Forcing, &c.—The same degree of attention to hot-beds and pits will be necessary as in the last month. Continue the forcing of asparagus, rhubarb, and sea-kale, in pits and in the mushroom house.

Proceed with the usual routine of culture commenced last month, making the necessary preparations to begin forcing by the last week of this, or the first of next month.

Flower Garden, &c.—The directions for last month will be found equally applicable to this. Rake and sweep leaves from lawns and gravel-walks, repairing the latter as occasion may require.

Hosanna
||
Hospital.

HOSANNA, in the Hebrew ceremonies, a prayer which was rehearsed on the several days of the feast of tabernacles. It was so called, because in it was frequently repeated the word *הוֹשַׁעְנוּ*, *serva nunc*, or *serva precor*, save us now; or, save us, we pray. There were different hosannas, called by the Jews *hoschannoth*, that is, the *hosannas*. Some were rehearsed on the first day, others on the second, and so on, and they were called *hosanna* of the first day, *hosanna* of the second day, and so of the others.

Hosanna Rabba, or *Grand Hosanna*, is a name given to the feast of tabernacles, which lasted eight days, during the course of which they frequently invoked the assistance of God, the forgiveness of their sins, and his blessing on the new year, and for this purpose made great use of the *hoschannoth*, or prayers above mentioned. The Jews also applied the term *hosanna rabba*, in a more peculiar manner, to the seventh day of the feast of tabernacles, because on that day they in an especial manner invoked the divine blessing.

HOSEA, the first in number of the minor Hebrew prophets, as arranged in the Hebrew and Greek Bibles, although probably the third in chronological order. He was the son of Beeri; but it is uncertain to what tribe he belonged. He prophesied in the reigns of Uzziah, Jotham, Ahaz, and Hezekiah, kings of Judah, and in the time of Jeroboam, king of Israel. If he uttered predictions during sixty-six years, that is, between 790 and 724 before Christ, then he discharged the office of a sacred seer eight years during the reign of Jeroboam II. thirty-three in that of Uzziah, during the entire reigns of Jotham and Ahaz, and three years under the reign of Hezekiah; but he could not have survived the taking of Samaria. He reproved the vices of kings as well as their subjects, mixing threatenings of divine vengeance with promises of pardon in case of repentance. His style is concise and sententious, and his comparisons are short and lively. He is sometimes distinguished by great force of expression, has many beautiful passages, and in some parts is truly sublime. Dr Newcome was of opinion that the chief difficulty in understanding this prophet is owing to the corrupt readings which disfigure the printed text; and these he freely corrected from the collations of Dr Kennicott. On the other hand, Dr Horsley protests earnestly against Dr Newcome's opinion, declaring that the corruptions can be no cause of obscurity; but we must leave it to our readers to determine which of these great men is in the right, from an attentive perusal of their own works, assured that they will decide in favour of him who furnishes the best helps for understanding the prophet.

HOSPINIAN, **RODOLPHUS**, one of the greatest writers that Switzerland has given birth to. He was born in 1547, at Altorf, near Zurich, obtained the freedom of Zurich, and was made provisor of the abbey-school. Notwithstanding this employment, he undertook a work of vast extent, being a History of the Errors of Popery. Though he could not complete this work according to the plan which he had formed, he published a considerable part of it; whilst his treatise on the Eucharist, and another work called *Concordia Discors*, exceedingly exasperated the Lutherans. He did not reply to them; but turning his arms against the Jesuits, published *Historia Jesuitica*. These writings gained him preferment; he was appointed archdeacon of Caroline church, and then minister of the abbey-church. He died in 1626; and an edition of his works was published at Geneva, 1681, in seven volumes folio.

HOSPITAL, popularly **SPITTAL**, a place or building erected, out of charity, for the reception and support of the poor, aged, infirm, sick, and otherwise helpless. The word is formed from the Latin *hospes*, host, stranger. See **Host**.

In the early ages of the church, the bishop had the im-

mediate charge of all the poor, both healthy and diseased, as also of widows, orphans, strangers, and others. When the churches came to have fixed revenues allotted to them, it was decreed that at least one fourth part of these should go to the relief of the poor; and to provide for them the more commodiously, houses of charity were built, which were afterwards denominated *hospitals*. They were governed wholly by the priests and deacons, under the inspection of the bishop. But in course of time, separate revenues were assigned for the *hospitals*; and particular persons, from motives of piety and charity, gave lands and money for erecting hospitals. When the church discipline began to relax, the priests, who till then had been the administrators of hospitals, converted them into a sort of benefices, which they held at pleasure, without accounting to any body, reserving the greater part of the income to their own use, so that the intentions of the founders were in a great measure frustrated. To remove this abuse, the council of Vienne expressly prohibited the giving any hospital to secular priests in the way of a benefice; and directed the administration of these establishments to be committed to sufficient and responsible laymen, who should take an oath, like that of tutors, for the faithful discharge of its duties, and be accountable to the ordinaries. This decree was executed and confirmed by the council of Trent.

In Britain hospitals are buildings properly endowed, or otherwise supported by charitable contributions, for the reception and support of the poor, aged, infirm, sick, or helpless.

HOSPITAL, or **HÔPITAL**, **MICHEL DE L'**, chancellor of France, and one of the most illustrious magistrates of modern times, was born at Aigueperse, in Auvergne, in the year 1505. His father, John de l'Hôpital, who was at once physician and counsellor to the Constable of Bourbon, sent him to study law, first at Toulouse, and afterwards at Padua, the legal school of which then enjoyed great celebrity. In that age jurisprudence was the principal science cultivated, and no one could aspire to any employment without having studied it profoundly. L'Hôpital, although he had already acquired the elements of this science in France, spent six years at Padua in improving himself therein; he also applied himself to the study of the belles-lettres, in which he made rapid advances, and at the same time cultivated the Greek and the Latin languages, with which he rendered himself perfectly familiar. Having completed his studies, and finding his prospects clouded by the death of the Cardinal de Grammont, who had induced him to return to France, and upon whose credit and influence he had founded his hopes of preferment, he entered himself of the bar at Paris. In this profession, his merit and virtue were soon appreciated. At the end of three years, John Morin, criminal lieutenant, a person famous in the martyrology of the Protestants, on account of the severity with which he enforced the laws enacted against them, gave L'Hôpital his daughter in marriage, and at the same time conferred upon him the office of counsellor to the parliament of Paris as her dowry.

In this situation, which he held during twelve years, the toleration he displayed formed a remarkable contrast to the unrelenting severity by which his father-in-law had rendered himself but too celebrated. When L'Hôpital entered the parliament, that once illustrious body had much degenerated, owing to the venality which the misfortunes of the time had forced Francis I. to introduce, or at least to overlook. A witness of this corruption, L'Hôpital deplored its consequences, and, in concert with some old magistrates who still remained, endeavoured to set an example of assiduity and application, to a crowd of inexperienced young men, who, by venality, had obtained admission into the parliament, and who had no other title to that honour but the money they had paid for it. L'Hôpital was long

Hôpital

Hôpital cited as a model in the magistracy. He made it a rule to listen with patience, to interrupt no one, to express himself as concisely as possible, and to oppose all unnecessary delays; he was also punctual in his attendance in court, where he generally remained until the business of the day had been regularly gone through, and always rose with reluctance, however late, if any portion of it remained unattended to. In short, he was a laborious and conscientious judge, who to great talents united the most steady and persevering industry. The vacations made no material change in his way of life; his pursuits were indeed different, but his application was the same; the perusal of the great writers of antiquity, the study of French history, and the reading of the Holy Scriptures, each in its turn formed the occupation of his leisure time. "There is nothing frivolous in my amusements," says he, in one of his letters; "sometimes Xenophon is the companion of my walks; sometimes the divine Plato regales me with the discourses of Socrates. History and poetry have their turns; but my chief delight is in the sacred writings."

The next appointment which L'Hôpital received was that conferred upon him by Henri II. of envoy or ambassador to the council of Trent, which was then sitting at Bologna. But having soon grown tired of the inactivity to which he found himself reduced, he was, at his own desire, recalled, and, upon his return, experienced some coldness on the part of the court, which did not altogether relish his evident disinclination to assist in the proceedings of that famous council. This obscurity, however, proved only temporary, for ere long he was restored to the royal favour, and appointed master of the requests. Nor did his promotion stop here. In the beginning of 1554, he was constituted director and superintendent of the royal finances in the chamber of accounts. At this time the finances required a guardian at once vigilant and faithful. Enormous abuses prevailed in the whole fiscal administration. On the one hand there existed profusion without limits, and on the other malversation without shame. Scarcely a third, or even a fourth part of the sums collected, ever reached the royal treasury; the people were exposed to the most grinding exactions, yet the revenue was in a state of gradual decline. To put an end to these disorders, L'Hôpital revived the ancient laws which had fallen into desuetude; he struck terror into defaulters by some examples of wholesome severity; he refused to sanction any expenditure except for the immediate purposes of the state; he defied the enmity of that numerous and vindictive class whose dishonest gains he had destroyed; and he acted with so much personal disinterestedness, that, after having been five years in office, he was unable to give a portion to his daughter, and the deficiency was supplied by the liberality of the sovereign.

After the fatal accident which, in 1559, put an end to the life of the king, the Cardinal de Lorraine, then at the head of affairs, introduced L'Hôpital into the council of state; but as one of the articles of the treaty of Chateau-Cambrésis had provided that the Duchess of Berri, his benefactress, should espouse Emanuel-Philibert, Duke of Savoy, he was appointed to conduct that princess into Piedmont, whither he attended her in the capacity of chancellor. The distracted situation of France, however, soon made it necessary to recall a man of such undaunted firmness and inflexible integrity. In the midst of faction, turbulence, and confusion, when the passions of men appeared, like the evil spirits, to have been for a season unchained, he was advanced to the office of chancellor of France, and in this elevated station conducted himself like a philosopher and a hero, superior alike to weakness and to fear. At this period the destruction of the Protestants had been determined on; it was resolved to leave them no alternative but abjuration or death; and it was even in con-

templation to establish in France the redoubtable tribunal of the inquisition. The new chancellor durst not attack this project in front, without compromising himself with the governing party; but he sought indirectly to defeat the odious design, and by the edict of Romorantin, which declared the crime of heresy to be cognisable only by the ecclesiastical judge, he ultimately accomplished his beneficent design, and thus decided the clergy to abandon all idea of establishing the inquisition, which, they knew, would be powerless when deprived of the aid of the secular arm. Upon all occasions, indeed, he was the advocate of mercy and reconciliation, and a declared enemy to persecution on account of religion; and hence the more bigoted Romanists, offended at his wisdom and moderation, accused him of being a concealed Protestant, forgetting that by such suspicions and accusations they paid the highest compliments to the spirit of that faith which they were so desirous to eradicate. With a man of such character, ability, and firmness at the head of affairs, it was hopeless to attempt to carry through the violent measures which were already contemplated; yet when the question of giving him a successor came to be seriously agitated, Catherine of Medicis found herself involved in very great perplexity. The ancient relations of L'Hôpital with the House of Lorraine; the estimation in which he was universally held, his known love of his country, which, in his mind, absorbed all other affections; and the difficulty of finding any one to fill his place, who would not sink into insignificance or contempt in comparison with this truly great man—were serious obstacles to his removal: but as nothing could induce him to abandon or change the pacific character of his measures, all other considerations were at length disregarded, and the queen excluded him from the council of war, upon which he immediately withdrew to his country-house at Vignay, near Estampes.

His exclusion from the council was accompanied with insult. The Constable of Montmorency told him that a man of his profession, a civilian, ought not to intermeddle in what related to war. "That is a subject," said the constable, "on which you are not qualified to give advice." "True," replied the chancellor, "I do not know how to make war, but *I know when it is necessary.*" Several days after his retirement from office, when the seals were demanded of him, he resigned them without regret, observing that the affairs of the world were too corrupt for him to meddle with them. He spent his time in lettered ease, amusing himself with writing Latin poetry, and enjoying the society of some select friends, until his peace was broken by the bloody tragedy of St Bartholomew, which, with his usual sagacity, he had foreseen. Of this barbarous and inexpiable massacre the judgment he pronounced has been ratified by posterity. He was himself near becoming one of its victims. The inhabitants of the country had risen, and were devastating the fields, and dragging the farmers in chains towards the city. But the queen, anxious about his fate, sent a detachment of cavalry for his protection. The sudden apparition of this troop, whose destination was unknown, produced great consternation in his house, which was open on all sides. He was asked by the inmates if they would close the gates. "No, no," said he; "if the small gate will not admit them, throw open the large one." When informed that the persons who prepared the lists of proscription had pardoned him the opposition which he had always given to their projects; "I did not know," replied he coldly, "that I had done any thing to deserve either pardon or death." But what most deeply affected L'Hôpital on this mournful occasion, was the danger to which his daughter, who happened to be in Paris, was in consequence exposed. She was saved by the interference of

Hôpital

Hospital
||
Hospitality.

Anne d'Este, duchess of Guise, whom L'Hôpital thanked for this signal service, in an epistle overflowing with the warmest feelings of paternal gratitude. These cruel events, however, deeply affected his health and spirits, and he died at Vignay, on the 13th of March 1573, at the age of sixty-eight, and less than one year after the massacre.

"L'Hôpital," says Brantôme, "was the greatest, worthiest, and most learned chancellor that was ever known in France. His large white beard, pale countenance, and austere manner, made all who saw him think they beheld a true portrait of St Jerome, and, in fact, he was called St Jerome by the courtiers. All orders of men feared him, particularly the members of the courts of justice; and when he examined them on their lives, their discharge of their duties, their capacities or their knowledge, and particularly when he examined candidates for offices, and found them deficient, he made them feel it. He was profoundly versed in polite learning, very eloquent, and an excellent poet. His severity was never ill natured; he made due allowance for the imperfections of human nature; he was always equal and firm. After his death, his very enemies acknowledged that he was the greatest magistrate whom France had known, and that they did not expect to see such another." The productions of L'Hôpital are, 1. Latin Poems; 2. Speeches delivered at the Meeting of the States at Orleans; 3. *Mémoires, contenant plusieurs Traités de Paix, &c.*, from 1551 to 1560, Cologne, 1672, in 12mo. A work which he had undertaken on law is lost; and it is said that he had also projected a history of his own time, on the model of the ancient historians; but of this no part appears to have been executed. In 1807, M. Bernardi published his *Essai sur la Vie, les Ecrits, et les Loix de Michel de l'Hôpital*, in one volume 8vo, from which and other documents Mr Charles Butler published his *Essay on the Life of L'Hôpital*, principally with the view of exhibiting him as a friend of toleration. (A.)

HOSPITAL, William-Francis-Antony, Marquis of, an eminent French mathematician, was born of an ancient family in 1661. He was a geometrician almost from his infancy; for one day being at the Duke of Rohan's, where some able mathematicians were speaking of a problem of Pascal's which appeared to them extremely difficult, he ventured to say that he believed he could solve it. They were amazed at such presumption in a boy of fifteen, for he was then no more; nevertheless, in a few days he sent them the solution. He entered early into the army, and rose to be a captain of horse; but being extremely shortsighted, and exposed on that account to perpetual inconveniences and errors, he at length quitted the army, and applied himself entirely to his favourite pursuit. He contracted a friendship for Malebranche, whose opinion he followed upon all occasions. In 1693 he was received as an honorary member of the Academy of Sciences at Paris; and he published a work upon Sir Isaac Newton's calculations, entitled *L'Analyse des Infinimens Petits*. He was the first in France who wrote upon this subject, and on this account was regarded almost as a prodigy. He engaged afterwards in another work of the mathematical kind, in which he included *Les Sections Coniques, les Lieux Géométriques, la Construction des Equations, et Une Théorie des Courbes Mécaniques*; but a little before he had finished it, he was seized with a fever, of which he died on the 2d of February 1704, at the age of forty-three. It was published after his death.

HOSPITALITY, the practice of entertaining strangers. Dr Robertson, speaking of the middle ages, says, "Among people whose manners are simple, and who are seldom visited by strangers, hospitality is a virtue of the first rank. This duty of hospitality was so necessary in that state of society which took place during the middle

ages, that it was not considered as one of those virtues which men may practise or not, according to the temper of their minds and the generosity of their hearts. Hospitality was enforced by statutes, and those who neglected the duty were liable to punishment. The laws of the Salvi ordained that the moveables of an inhospitable person should be confiscated, and his house burnt. They were even so solicitous for the entertainment of strangers, that they permitted the landlord to steal for the support of his guest."

The hospitality of our British ancestors, particularly of the great and opulent barons, has been much admired, and considered as a certain proof of nobleness and generosity of spirit. The fact indeed is well attested. The castles of the powerful barons were capacious palaces, daily crowded with numerous retainers, who were always welcome to plentiful tables. They had their privy councillors, their treasurers, marshals, constables, stewards, secretaries, chaplains, heralds, pursuivants, pages, henchmen or guards, trumpeters, minstrels, and, in a word, all the officers of a royal court. The etiquette of their families was an exact copy of that of the royal household; and some of them lived in a degree of pomp and splendour little inferior to that of the greatest kings. Richard Neville, earl of Warwick, we are told, "was ever had in great favour of the commons of the land, because of the exceeding household which he daily kept in all countries wherever he sojourned or lay; and when he came to London, he held such an house, that six oxen were eaten at a breakfast, and every tavern was full of his meat." The Earls of Douglas in Scotland, before the fall of that great family, rivalled or rather exceeded their sovereigns in pomp and profuse hospitality. But it is highly probable these great chieftains were prompted to indulge this style of living by a desire of increasing the number and attachment of their retainers, on which, in those turbulent times, their dignity, and even their safety, depended, as much as to the innate generosity of their tempers. Those retainers did not constantly reside in the families of their lords; but they wore their liveries and badges, frequently feasted in their halls, swelled their retinues on all great solemnities, attended them in their journeys, and followed them into the field of battle. Some powerful chieftains had constantly at their command so great a number of these retainers, that, setting the laws at defiance, they became formidable to their sovereigns, and terrible to their fellow-subjects; and several laws were made against giving and receiving liveries. But these laws produced little effect at this period.

Hospitality was not confined to the great and opulent, but was practised rather more than it is at present by persons in the middle and lower ranks of life. But this was owing to necessity, arising from the scarcity of inns, which obliged travellers and strangers to apply to private persons for lodging and entertainment; and those who received them hospitably acquired a right to a similar reception. This was evidently the case in Scotland in the first part of this period. In the year 1424, James I. procured the following act of parliament:—"It is ordanit, That in all burrow townis, and throughfairis quhair commoun passages ar, that thair be ordanit hostillaries and resettis, havand stables and chalmers; and that men find with thame bread and aill, and all uthir fude, alsweil for horse as men, for resonable price." But travellers had been so long accustomed to lodge in private houses, that these public inns were quite neglected; and those who kept them presented a petition to parliament, complaining, "That the liegis travelland in the realme, quhen they cum to burrowis and throughfairis, herbreis thame not in hostillaries, bot with thair acquaintance and freindis." This produced an act prohibiting travellers to lodge in private houses where there were hostleries, under the penalty of forty shillings, and subjecting those who lodged them to the same penalty.

Hospitality.

**Hospital-
lers**
Host. The inhabitants of the Highlands of Scotland and the Western Isles were anciently remarkable for their hospitality to strangers, and still happily retain, in no inconsiderable degree, the same kindly disposition.

HOSPITALLEERS, HOSPITALARI, an order of religious knights, who built at Jerusalem an hospital, in which pilgrims were received. To these Pope Clement V. transferred the effects and revenues of the Templars, whom, by a council held at Vienne, he suppressed for their numerous and flagrant misdemeanours. These hospitallers, otherwise called knights of St John of Jerusalem, are the same with those who were latterly called knights of Malta.

HOSPITIUM, a term used in old writers either for an inn or a monastery, built for the reception of strangers and travellers.

HOSPODAR, a title borne by the princes of Moldavia and Wallachia, who used to receive the investiture of their principalities from the grand seignior. He gave them a vest and standard; they were under his protection, and obliged to serve him; and he even sometimes deposed them; but in other respects they were absolute sovereigns within their own dominions. But since the treaty of Adrianople, concluded between Russia and Turkey in 1829, the former power has acquired an ascendancy in these principalities, and obtained a complete control over the nomination of the hospodars.

HOSSEEPPOOR, a town of Hindustan, province of Bahar, eighty-two miles north-west from Patna. Long. 84. 17. E. Lat. 26. 25. N.

HOSSEIN-ABDAUL, a town of Hindustan, province of Lahore, situated thirty miles east of the Indus. It is the frontier town of the Afghans, and has been a frequent object of contention between them and the Sikhs. Long. 71. 43. E. Lat. 33. N.

HOSSOBETTA, a town in the south of Hindustan, and province of North Canara. The principal inhabitants consist of Concanies, or the descendants of the natives of the Concan, who, according to the account of Dr Buchanan, fled thither from the Portuguese settlement of Goa, in order to avoid the persecutions of the Portuguese Catholics, who were desirous to convert them to the Christian faith. Long. 75. E. Lat. 12. 42. N.

HOSSO-DURGA, a small town of Hindustan, in the province of South Canara. It possesses a fort and a temple, which is served by a few Puttar Brahmins, the chief inhabitants of the place. The fort is large and well built, with round bastions, which render it more defensible than the forts in India with square bastions generally are. The surrounding country is overgrown with wood, and but thinly inhabited, consisting, like the rest of Malabar, of low hills and narrow valleys alternately.

HOST, HOSPE, a term of mutual relation, applied both to a person who lodges and entertains another, and to the person thus lodged. It is formed from the Latin *hospes*, which according to some, was thus called *quasi hostium* or *ostium petens*, *ostium* having anciently been written with an aspirate. Thus the innkeeper says, he has a good *host*, in speaking of the traveller who lodges with him; and the traveller, again, says he has a kind *host*, in speaking of his landlord.

It must be observed, however, that it was the custom amongst the ancients, when any stranger asked lodging, for the master of the house, and the stranger, each of them to set a foot on their own side of the threshold, and swear they would neither of them do any harm to the other. It was this ceremony which raised so much horror against those who violated the law or right of hospitality on either side, inasmuch as they were looked upon as perjured.

Instead of *hospes*, the ancient Latins called it *hostis*, as Cicero himself informs us; though, in course of time, *hostis* came to signify an enemy, so much had the notion of hospitality degenerated.

Host is also used by way of abbreviation for *hostia*, a victim or sacrifice offered to the Deity. In this sense, *host* is more immediately understood of the person of the Word Incarnate, who was offered up an *host* or *hostia* to the Father on the cross for the sins of mankind.

Host, in the church of Rome, a name given to the elements used in the eucharist, or rather to the consecrated wafer, which they pretend to offer up every day as a new host or sacrifice for the sins of mankind.

HOSTAGE, a person given up to an enemy as a security for the performance of the articles of a treaty.

HOSTIA, Host, in *Antiquity*, a victim offered in sacrifice to a deity.

The word is formed from *hostis*, enemy, it being the custom to offer up a sacrifice before they joined battle, to render the gods propitious, or, after the battle was over, to return them thanks. Some choose to derive the word from *hostio*, the same as *ferio*, I strike. Isidore remarks on this word, that the name *hostia* was given to those sacrifices which they offered before they marched to attack an enemy (*antiquam ad hostem pergerent*); in contradistinction to *victima*, which were properly those offered after the victory.

Hostia also signified the lesser sorts of sacrifice, and *victima* the larger. Aulus Gellius says, that every priest, indifferently, might sacrifice the *hostia*, but that the *victima* could be offered by none but the conqueror himself. After all, however, we find these two words promiscuously used, one for the other, by ancient writers. We read of many kinds of *hostia*, as *hostia pura*, which were pigs or lambs ten days old; *hostia præcidanea*, sacrifices offered the day before a solemn feast; *hostia bidentes*, sacrifices of sheep or other animals of two years old; *hostia eximie*, a sacrifice of the flower of the flock; *hostia succedanea*, sacrifices offered after others which had exhibited some ill omen; *hostia ambarvales*, victims sacrificed after having been solemnly led round the fields at the *ambarvalia*; *hostia amburbiales*, victims slain after the *amburbium*; *hostia canearum* or *caviarum*, victims sacrificed every fifth year by the college of pontiffs, in which they offered the part of the tail called *caviar*; *hostia prodigia*, sacrifices in which the fire consumed all, and left nothing for the priests; *hostia piaculares*, expiatory sacrifices; *hostia ambegna* or *ambegnæ*, sacrifices of cows or sheep that had brought forth twins; *hostia haruga*, victims offered to predict future events from; *hostia mediales*, black victims offered at noon.

HOSTILITY, the action of an enemy, or a state of warfare. The word is low Latin, *hostilitas*, formed from the primitive word *hostis*, which signifies enemy, and which anciently signified stranger, *hospes*.

HOT-BEDS, in Gardening, beds made with fresh horse-dung or tanners' bark, and covered with glasses to defend them from cold winds. See HORTICULTURE.

HOT-HOUSE. See HORTICULTURE.

HOTEL, a French term, anciently signifying a house or dwelling-place. It was afterwards used to signify the palaces or houses of the king, princes, and great lords.

HOTEL likewise means a large inn, or a large lodging-house ready furnished.

HOTTENTOTS, the original inhabitants of Cape Colony, and other places in the southern angle of Africa. They are divided into several tribes, but their mental and physical characteristics are the same in all. They have been already fully described in the articles AFRICA and GOOD HOPE, CAPE OF, which see.

HOTTINGER, JOHN HENRY, one of the most learned and eminent of the Protestant divines of Switzerland, was born at Zurich in the year 1620. At an early age he discovered an invincible propensity to learning, and acquired with astonishing facility the knowledge of languages.

Hottinger. The trustees of the schools had their attention attracted towards Hottinger by his amazing progress in the knowledge of the Hebrew, Greek, and Latin, and they determined to send him to foreign universities at the public expense. In 1638 he studied for a short time at Geneva under the celebrated Frederick Spanheim, and went afterwards to France. He next visited Holland and Flanders, and became a student in the university of Groningen, where he attended the theological lectures of Francis Gommar and Professor Altling, and studied the Arabic language under Professor Pasor. Being anxious, however, to enjoy still greater advantages than this situation afforded, he went to Leyden, where he became tutor to the children of Professor Golius, whose knowledge of oriental languages was at that time unrivalled. By his instructions and those of a Turk then at Leyden, Hottinger acquired an extensive knowledge of the Arabic, and Golius permitted him to copy many of the Arabic manuscripts which he had in his possession. In 1641 he was chosen chaplain to the embassy of the states-general to Constantinople; but the magistrates of Zurich would not suffer him to accept of it, resolving that his talents should be exerted for the glory and the benefit of their own public schools. They permitted him to visit England prior to his return home, where he contracted habits of intimacy with some of the most distinguished literary characters. As soon as he returned to Zurich, he was appointed professor of church history, when not more than twenty-two years of age; and when twenty-three, he was chosen professor of catechetical divinity and oriental languages. About this period he married, and began his career as an author, in which he persevered for twenty years with the most astonishing industry. In 1653 he was appointed professor of rhetoric, and professor extraordinary of the divinity of the Old Testament, and of controversial theology.

About this time Hottinger became so justly celebrated as a man of uncommon erudition, that his aid was earnestly requested by the elector palatine to restore the fame of the university of Heidelberg. The magistrates of Zurich consented to lend him for three years. At Heidelberg he was named professor of divinity, principal, ecclesiastical counsellor, and rector; and he wrote in favour of the reunion of Lutherans and Calvinists; but he had no better success than his predecessors who had made the same attempt. He continued at Heidelberg, by permission of the magistrates of Zurich, till the year 1661. On his return home he was chosen president of the commissioners who were appointed to revise the German translation of the Bible. Though requested to accept of professorships from the magistrates of Deventer, the landgrave of Hesse, and the magistrates of Amsterdam and Bremen, the love of his country induced him to reject all these offers. He was offered the divinity chair at Leyden in 1667; but the magistrates would not part with him. This made the Dutch request him as a loan, to which the magistrates agreed, from their respect for the states of Holland; but whilst making preparations for his departure, he was unfortunately drowned in the river which runs through Zurich, when on his way to an estate of his own, about six miles from that city.

Dr Hottinger was a man of extraordinary abilities, both natural and acquired, having few equals in his knowledge of oriental languages and the antiquities of the church. He had a most retentive memory, and his literary industry was almost unexampled. His life was comparatively short, being only forty-seven when he found a watery grave; yet he was the author of no fewer than forty volumes on different subjects. He is frequently inaccurate, owing to the astonishing rapidity with which he wrote. His principal works are, 1. *Exercitationes Anti-Morinianæ de Pentateucho Samaritano*, Zurich, 1644, in 4to; 2. *Ero-*

tematum Linguae Sanctæ libri duo, cum Appendice Aphorismorum, ibid. 1647; 3. *Thesaurus Philologicus, seu Clavis Scripturæ qua quidquid fere Orientalium, Hebræorum maxime et Arabum habent monumenta de Religione ejusque variis speciebus, Judaismo, Samaritanismo, Muhamedismo, Gentilismo, &c.* ibid. 1649; 4. *Historia Ecclesiastica Novi Testamenti*, in nine parts, 1651–1667; 5. *Historia Orientalis ex variis Monumentis Collecta*, ibid. 1651, in 4to; 6. *Grammaticæ Chaldæo-Syriacæ libri duo*, ibid. 1652; 7. *Analecta Historico-Theologica, octo Dissertationibus proposita*; 8. *Dissertationum miscellanearum Pentas*, ibid. 1654, in 8vo; 9. *Dissertatio de Subsidiis Analyseos Sacræ, ubi prolixè de Sensu Verborum Institutionis Cœnæ Dominicæ*, ibid. 1654, in 8vo; 10. *Juris Hebræorum leges 261, juxta Legis Mosaicæ ordinem ac seriem depromptæ*; 11. *Smegma Orientale sordibus barbarismi contemptui præsertim Linguarum Orientalium appositum*, Heidelberg, 1657, in 4to; 12. *Grammatica Ling. Hebr. Chald. Syr. et Arabicæ Harmonica*, ibid. 1657; 13. *Cippi Hebraici*, ibid. 1659, in 8vo; 14. *Primitiæ Heidelbergenses*, ibid. 1659; 15. *Dissert. Theolog. Philolog. fasciculus*, ibid. 1660; 16. *Etymologicon Orientale, sive Lexicon Harmonicon Heptaglotton*, 1661, in 4to; 17. *Epitome utriusque Juris Judaici, Aphorismis Maimonides exhibitæ*, ibid. 1661; 18. *Compendium Theologiæ Christianæ Ecclesiarum Orientalium, Syrorum cum primis, Æthiopum, Arabum, et Egyptiorum*; 19. *Compendium Theatri Ismaelitici sive Saracenicæ*, ibid. 1662, in 8vo; 20. *Bibliothecarius tripartitus*, Zurich, 1664, in 4to.

HOUBRAKEN, JACOB, an eminent engraver, was the son of Arnold Houbraken, a native of Holland, and born on the 25th of December 1698. By whom he was instructed in engraving we are not informed, but he is supposed to have been initiated in the principles of the art by his father, and to have studied the portraits of Edelinck, especially that of Lebrun, which is usually prefixed to the engravings of Gerard Audran from the battles of Alexander. For some time he worked in obscurity without obtaining either profit or fame, and he had attained the meridian of life before he engaged in the undertaking by which he is best known; a work founded on a plan of George Vertue, who proposed to give sets or classes of eminent men, though the design was afterwards adopted by others, and thus taken out of the hands of the projector. The persons who undertook and brought to a conclusion this great national work were the Knaptons, booksellers, who, encouraged by the success of Rapin's History of England, employed both Vertue and Houbraken, but chiefly the latter. Some of Houbraken's heads were carelessly executed, especially those of the moderns; but others display a wonderful union of softness and freedom, with good drawing and a masterly determination of the features, such as we observe in the works of Nanteuil, Edelinck, and Drevet. From his solicitude to avoid the appearance of an outline, he frequently neglected the little sharpnesses of light and shadow which appear in nature, and, like the accidental semitones in music, excite a pleasing sensation in the mind, in proportion as the variation is judiciously managed. For want of attention to this essential beauty, many of his productions have a hazy appearance, and do not strike the eye with the force which might be expected from the excellence of the engraving. Houbraken lived to a good old age, and died at Amsterdam in 1780.

(A.)

HOUGHTON LE SPRING, a town of the ward of Easington, in the county of Durham, 266 miles from London, and seven from Durham. There is a well-endowed classical school, founded by a former rector; and the livery is a very valuable one, in the gift of the bishop. The inhabitants amounted in 1801 to 996, in 1811 to 1356, in 1821 to 2905, and in 1831 to 3917.

Houbraken
Houghton
le Spring.

H O U N D.

Hound. FROM the combination of various causes, the history of no animal is more interesting than that of the dog. First, his intimate association with man, not only as his valuable servant and protector, but as his constant and faithful companion throughout all the vicissitudes of life. Secondly, from his natural endowments, not consisting solely in the exquisite delicacy of one individual sense, that fineness of olfactory nerve by which the earth and air send forth showers of perfumes; not merely combining memory with reflection that soars above instinctive preservation or self-enjoyment; but qualities of the mind that absolutely stagger us in the contemplation of them, and which we can alone account for in the gradation existing in that wonderful system which (by different links of one vast chain, extending from the first to the last of all things, till it forms a perfect whole) is placed, as Professor Harwood elegantly expresses it, "in the doubtful confines of the material and spiritual worlds." It might have been instinct that enabled Ulysses's dog to recognize him on his re-landing in Ithaca, after an absence which must have set the powers of memory at defiance; and he recognized him with all the acuteness and affection which instinct boasts; *but what caused him to expire at his feet on the sudden dawn of unexpected happiness?* The heart of man could go no further than this; and although perhaps the poet's fiction is only present to us in this instance, by what name can we call those tender affections, those sincere attachments, those personal considerations, which we ourselves have witnessed in these faithful creatures towards human kind? Virtue alone is too cold a term, as almost every good quality to be found in animated nature is to be found here; and when we reflect upon the miserable existence so often the lot of this kind-hearted animal in this world, and the more than uncertainty that, as Byron says, he will be

"Denied in heaven the soul he held on earth,"

we cannot but feel regret that he should be without his reward. But yet this is a point not exactly decided upon by man; at least it has been considered as a fit subject for speculation by deep and able thinkers. Mr Locke, for example, doubted whether brutes survive the grave, because there is no hint given of it in revelation; but Dr Priestley thought, if the resurrection of the dead be within the proper course of nature, and there be something remaining of every organized body that death does not destroy, there will be reason to conclude that they will be benefited by it as well as ourselves. "The misery," says this forcible writer, and great moral philosopher, "some animals are exposed to in this life, may induce us to think that a merciful and just God will make them some recompense for it hereafter."

But no animal has met with more variety of respect shown towards him than the dog has. By the law of Moses he was declared unclean, and was held in great contempt by the Jews, as also by the Turks, and kept by both merely for the purposes of scavenging their streets. In every part of the sacred writings, as also in those of Greece and Rome, not only are images introduced from the works of nature, and metaphors drawn from the manners and economy of animals, but the names of them are applied to persons supposed to possess any of their respective qualities. Thus our Saviour, adopting this concise method, applies the word "dog" to men of odious character and violent temper; and, as with us at present, the term of reproach, "he was a son of a dog," was in common use among the Jews. The wife Abigail (1 Samuel, xxv. 3) "was a

VOL. XI.

woman of good understanding, and of a beautiful countenance; but the man (Nabal) was churlish and evil in his doings, and *was of the house of Caleb.*" But this last, says an able expounder of the Scriptures, is not a proper name. Literally it is, "he was the son of a dog." On the other hand, the idolatrous Egyptians held the dog sacred, and worshipped him in their god Anubis, representing the form of a man with a dog's head, which Juvenal complains of in his fifteenth satire:

"Oppida tota canem venerantur, nemo Dianam."

Anubis, says Strabo, is also the city of dogs, the capital of the Cynopolitan prefecture. "Those animals," says he, "are fed there on sacred aliments, and religion has decreed them a worship." This absurd adoration is confirmed by Diodorus Siculus and Herodotus; and Rome having adopted the ceremonies of Egypt, the Emperor Commodus, when celebrating the Isiac feasts, shaved his head, and himself carried the dog Anubis.

But to proceed to their origin and history. It has been justly remarked, that "all dogs whatsoever, even from the terrible Boar-dog to little Flora, were all one in the first creation;" and every virtue and faculty, size and shape, which we find or improve in every dog upon earth, were originally comprehended in the first parents of the species, nothing having remained constant but their natural conformation; and all the variety which we now behold in them is either the product of climate or the accidental effect of soil, food, or situation, and very frequently the issue alone of human care, curiosity, or caprice. This we take to be the case with other departments of the creation. For example, we only acknowledge two sorts of pigeons, the wild and the tame. Of the first there is but one, the *œnas*, or vinago of Ray. Of the last, the varieties are innumerable. The tame and the wild goose are likewise originally of the same species, the influence of domestication alone having caused the tame ones to differ from the parent stock. Notwithstanding, however, the efforts and effects of human industry and skill, there is fortunately a *ne plus ultra* in nature which cannot be passed; and as there is a distinct specific difference in all living creatures, a pigeon is still a pigeon, a goose a goose, and a dog remains a dog. Still, although no human device can add one new *species* to the works of the creation, and nature is still uniform in the main, as we have already observed, in our remarks on the horse, she is always ready to meet the demands of art, a fact beautifully set forth in these lines of *Hudibras* :—

"How fair and sweet the planted rose,
Beyond the wild in hedges grows!
For without art the noblest seeds
Of flowers degen'rate into weeds.
How dull and rugged, ere 'tis ground
And polish'd, is the diamond.
'Though Paradise were e'er so fair,
It was not kept so without care:
The whole world, without art and dress,
Would be but one great wilderness;
And mankind but a savage herd,
For all that nature has conferr'd.
This does but rough-hew and design,
Leaves art to polish and refine."

We have good reason to believe that England (in a great measure from the congeniality of its climate) has long been famous for dogs, which, on the authority of Strabo (lib. iv. p. 199), were much sought after by all the surrounding nations. So high indeed in repute were British dogs amongst the Romans after the reduction of our

4 T

Hound. island, not only for excellence in the chase, but fierceness in the combat, that an officer from that country was appointed to reside in the city of Winchester, for the express purpose of collecting and breeding them to supply the amphitheatre, as well as the imperial kennel, at Rome. Nor was this all. As a kind of earnest of our present celebrity in the various sports of the field, all the neighbouring countries, as Dr Campbell remarks, "have done justice to our dogs, adopted our terms and names into their language, received them thankfully as presents, and, when they have an opportunity, purchased them at a dear rate."¹ Thus we find, that when King Alfred requested Fulco, archbishop of Rheims, to send some learned ecclesiastics into England, he accompanied his letter with a present of several dogs, being the most valuable he could, in those times, bestow. The congeniality of our climate has contributed much to this excellence, as our dogs, hounds especially, are found to degenerate in most others; which Somerville alludes to in his poem of the Chase.

"In thee alone, fair land of liberty,
Is bred the perfect hound, in scent and speed
As yet unrivall'd, while in other climes
Their virtue fails, a weak degen'rate race."

We do not benefit much by research into ancient authors on the subject of dogs; for although they have been much written upon, and immortalised in song by Oppian, Claudian, Grattius, and others (Virgil says little about them), yet, from our ignorance of the sort of animal bred in their time, and the use they made of them, as *sportsmen*, we can draw no parallel between them and our own that would tend to a good purpose. No doubt the "*canis vestigator*" of Columella, and the "*canis odoratus*" of Claudian, were of what we term a low-scenting sort, as the epithets applied to them signify; but it would be difficult to pronounce an opinion upon the *κασιόγριαι*, or the *ἀλω-πικίδες*, of Xenophon, although the characteristic properties of good hunting hounds are very well and accurately laid down by him in the third chapter of his *Κυνήγια*, as well as their defects in form, &c. equally clearly exposed; and his observations on these points might be perused with advantage by huntsmen of the present day.

Great encouragement has been given to the breeding of hounds in England by the various monarchs who have reigned over it. Henry II. was perhaps the first who made himself conspicuous in this department of the sportsman's occupation, being, as one of his historians says of him, "particularly curious in his hounds, that they should be fleet, well-tongued, and consonous." The last epithet is in reference to a property not only little regarded, but nearly lost now, namely, the deep tongue of the old English blood-hound, which Shakspeare alludes to in his celebrated description of those "of the Spartan kind:"

"(So flew, so sanded, and their heads are hung
With ears that sweep away the morning dew.
Crook-knee'd, and dewlapt, like Thessalian bulls;
Slow in pursuit; but match'd in mouth like bells,
Each under each:)"

which would now be considered a disgrace to any man's kennel, and we believe nowhere to be found, bearing the faintest resemblance to the picture drawn of them by this master-hand.

In Queen Elizabeth's time a classification was made by Dr Caius, physician to the queen, in his treatise *De Canibus Britannicis*, of the different kinds of dogs peculiar to Great Britain; but many of the names (the sleute or sluth hound of the Scotch, for example) having since become obsolete, they were again classed by Mr Daniel, in his *Rural Sports*, which work contains a full and satisfactory historical account of their origin, different crosses,

&c. under the following genealogical heads:—Shepherd's Dog, Iceland Dog, Lapland Dog, Siberian Dog, Hound, Terrier, Large Spaniel, Small Spaniel, Water Dog, Small Water Dog, Bull Dog, Large Danish Dog, Irish Greyhound, English Greyhound, and Mastiff. Taplin, in his *Sporting Dictionary*, expresses his surprise that the Pointer is omitted; but we consider the Pointer as a dog of foreign extraction, and to our early ancestors certainly unknown.

The original stock from which English hounds have been bred would be very difficult to determine upon; but one thing is certain, namely, that the several sorts with which the country once abounded have been becoming fewer and fewer, in the course of the last hundred years, and now centre in three varieties, namely, the Fox-hound, the Harrier, and the Beagle. The stag-hound is gone, at least there is no pack of stag-hounds now kept in Great Britain, the last having been disposed of and sent abroad, soon after the stag hunting establishment in Devonshire was broken up, a few years ago. The beagle is also become rare; and otter-hounds, such as we may conclude the *κασιόγριαι* of Xenophon to have been, never existed in this country, the dog used in hunting the otter being the common harrier; and perhaps the parent of all, the majestic blood-hound, whose

"Nostrils oft, if ancient fame sings true,
Trace the sly felon through the tainted dew,"

is at present very thinly scattered, here and there only, at keepers' lodges in some of our royal forests. But we more than doubt whether a true specimen of the original English blood-hound exists in England at all at the present day; nor is this a matter of regret, as, unlike the rest of his species, his character is said to be that of decided enmity to man. Strabo describes an attack upon the Gauls by these animals, and likewise says they were purchased in Britain by the Celtæ, for the purposes of war, as well as those of the chase; but it is doubtful whether the most savage of this race would devour man without being trained to it, which we know that they were on a late horrible occasion, when, as stated in Rainsford's *History of St Domingo*, they were fed upon blood, and a figure representing a negro, containing blood and entrails of beasts, was the object they were led to pursue. In the West Indies, however, the blood-hound, under proper control, has been found useful in tracing runaway negroes, as the sluth-hound of the Scotch was early applied to discover the haunts of robbers; and to the same purpose also on the confines of England and Wales, where the borderers preyed on the flocks and herds of their neighbours, whenever an opportunity offered. Of deer-stealers, who were so numerous a century or two ago, they were likewise the terror; and well might they have been so, for when once fairly laid upon the foot of one, they seldom failed to hunt up to him. But it is in the civil wars of our own country that blood-hounds are placed in the most conspicuous light, particularly as available to the operations of Wallace and Bruce; and the poetical historians of the two heroes allude to their services to their masters, as well as to the escapes they had from those of their various enemies.

The distinguishing features of the English blood-hound are, long, smooth, and pendulous ears, with a wide forehead, obtuse nose, expansive nostrils, and deep flewed, with an awfully deep but highly sonorous tongue. The prevailing colour is a reddish tan, darkening to the upper part, often with a mixture of black upon the back. In short, the deep-flewed southern hare-hound, now almost extinct in England, very nearly resembles the English blood-hound in form and colour; and a person may picture to

¹ Campbell's *Political Survey*, vol. ii. p. 205, note (D).

Hound. himself the latter, by supposing an animal considerably larger than the old southern hound. In height he is from twenty-six to twenty-eight inches, and sometimes more. The blood-hound of the West Indies is also about the same height, but differs much in form. He has small, erect ears, the nose more pointed, and the hair and skin hard. His countenance is ill featured and ferocious; and although not so heavy as the English blood-hound, he is quite as muscular, and very active.

The distinguishing property of the blood-hound in chase, consists in his never changing from the scent on which he is first laid; and he will hunt by the shed blood of a wounded or dead animal as truly as he will by the foot, which rendered him so useful in pursuit of the deer or sheep-stealer.

The English stag-hound, now nearly gone, is little more than a mongrel blood-hound; at least it is reasonable to conclude, that the cross which produced him was directly from the English blood-hound with some lighter animal of a similar species (perhaps a greyhound, or lurcher) approximating his form, to which conjecture his figure and disposition, as well as his comparative inferiority of scent, appear to add strength. It is asserted in the *Sportsman's Cabinet*, that the stag-hound "was originally an improved cross between the old English deep-tongued southern hound and the fleeter fox-hound, grafted upon the basis of what was formerly called, and better known by the appellation of, blood-hound." But this assertion must have been made without proper reflection; for, in the first place, a cross between the deep-tongued southern and the fox-hound will not produce an animal nearly so large or so strong as the stag-hound; and, secondly, the stag-hound was known in England long before the fox-hound was made use of, or, indeed, before there was an animal at all resembling the one which is now known by that term.

We confess we regret the prospect of the total extinction of the English stag-hound, who, although his form possessed little of that symmetry we now see in the English fox-hound, was a majestic animal of his kind, and possessed the property peculiar alone to the blood-hound and himself, of unerringly tracing the scent he was laid upon, amongst a hundred others; which evinces a superiority, at all events a peculiarity, of nose entirely unknown to our lighter hounds of any breed. The want of being able to distinguish the hunted fox from a fresh-found one is the bane of English fox-hunting; and there are not wanting those who think, that in the breeding of the modern fox-hound, the minor points of high form and blood are more frequently considered than they should be, in preference of a regard to nose.

The Fox-Hound.

The English fox-hound of the present day is a perfect living model; but how he has become such, it is in no one's power to determine. Although we do not like to apply the term of mongrel to an animal we so highly respect, yet there can be no doubt of his being one of a spurious race, engrafted with care on the parent stock, namely, the old English blood-hound. There is, we believe also, no doubt that a century and a half ago there was no animal in the world resembling the present breed of fox-hound; and that the fox, when hunted at all in Great Britain, was hunted by a dog much resembling what is now known as the Welch harrier, rough-haired and strong, but of very far from slightly appearance. As all animals, however, improve under the care and guidance of man, until at length they assume the character of a distinct breed; such has evidently been the case with hounds, the breeders of which have, by going from better to better in their choice of the animals from which they have bred, progressively ar-

Hound. rived at the perfection we see in them. And such has been the case with all our domestic animals, the breeders of which have alone attained their ends by the choice of individuals of the highest excellence in their kind, and by a judicious selection of size, form, and qualities likely to produce the result. There can be no doubt, then, but that by pursuing this course throughout a number of generations with the hound, an animal has been produced of what may be called quite a new variety in the canine race, answering the description and purposes of our present fox-hound. But the questions may be asked, Whence the necessity for this change, and forcing, as it were, nature from her usual course? Why not be content with the low-scenting, plodding hounds of our forefathers, which, from the superiority of their nose, not only displayed *hunting*, in the strict acceptation of that term, to the highest advantage, but very rarely missed the game they pursued? These questions are satisfactorily answered in a few words; first, as the fox is not now found by the drag, and the number of those animals is so greatly increased, the necessity for this extreme tenderness of nose does not exist; and, secondly, by reason of the blood of the race-horse having gradually mixed with that of our hunters, the sort of hound we have been alluding to was not found to be adapted to their increased speed; and particularly as, in proportion as nature lavished this fine sense of smelling on the old-fashioned hound, was he given to "hang" or dwell upon the scent, thereby rendering the length of a chase (which, to please the present taste, should, like Chatham's battle, be "sharp, short, and decisive") beyond the endurance of a modern sportsman. It is true, Mr Beckford, in his *Thoughts upon Hunting*, gives an instance of a pack of old-fashioned hounds, which ran in a string, as it were, one following the other, and yet killing twenty-nine foxes in twenty-nine successive runs, each fault being hit off by an old southern hound. But what would our hard-riding, modern sportsmen think of this as pastime? Nevertheless, all who witnessed, as we have done, the style of hunting of the Devonshire stag-hounds, will remember that there was a close similarity between them in chase, and the pack Mr Beckford speaks of. But, as the same eminent author afterwards observes, it is the dash of the fox-hound of the present day that distinguishes him from all others of his genus, and hounds must now "carry a head."

The breeding a pack of fox-hounds to a pitch bordering on perfection is a task of no ordinary difficulty; the best proof of which is to be found in the few sportsmen who have succeeded in it. Not only is every good quality to be regarded, and if possible obtained, but every fault or imperfection to be avoided; and although the good qualities of hounds are very soon reckoned, their faults in shape and performance present a longer catalogue. Independently of shape, which combines strength with beauty, the highest virtue in a fox-hound is not in the exquisiteness of his nose, but in his being true to the line his game has gone, and a stout runner to the end of a chase. But he must not only thus signalize himself in chase; he must also be a patient hunter, with a cold scent, or with the pack at fault. In short, to be a hard runner and a good hunter, and steady on the line, which "a good hunter" implies, constitutes a perfect hound, when combined with good form.

The faults of hounds, too often innate, can only be cured by education. The greatest of all are, skirting, or not being true on the line, and throwing the tongue improperly; first, without a scent, which is known by the term babbling; secondly, not throwing it at all, or running mute; and, thirdly, on a wrong scent, which is called running riot. The latter, however, is the least vice of the two, because generally curable by the lash; but the fault of skirting is too often innate; at all events, too often incurable. Thus has the breeder of the hound to guard against propensities as

Hound. well as faults; and a late accredited writer on the subject says, "In modern times, the system of hunting is so much improved, so much more attention is paid to the condition of hounds and their style of work, that in this enlightened age a master of hounds thinks it a reflection on his judgment if *one* hound in his pack is detected in a fault."¹

The selection of dog and bitch to breed from is a nice point for a master of hounds, or his huntsman, to decide upon; but, if he aim at excellence, he must keep his eye on perfection. In no animal is perfect symmetry so desirable as in a fox-hound, for without it there is no dependence on his services, however good may be his nature. We will first describe him in the words of a very old writer, and afterwards in those of Mr Beckford, when it will appear that there is a strong resemblance in the portraits drawn by each. "His head," says the former, "ought to be of middle proportion, rather long than round; his nostrils wide; his ears large; his back bowed; the fillets great; the haunches large; the thighs well trussed; the ham straight; the tail big near the reins, and the rest slender to the end; the leg big; the sole of the foot dry, and formed like a fox's, with the claws great." The latter says, "There are necessary points in the shape of a hound which ought always to be attended to; for if he be not a perfect symmetry, he will neither run fast nor bear much work; he has much to undergo, and should have strength proportioned to it. Let his legs be straight as arrows; his feet round, and not too large; his shoulders back; his breast rather wide than narrow; his chest deep; his back broad; his head small; his neck thin; his tail thick and brushy; if he carry it well so much the better." Now the hound that would answer to either of these descriptions would disgrace no man's kennel, and one resembling the latter would be an ornament to it; but with regard to the former, it must be borne in mind, that it is from the pen of a sportsman who wrote a century and half ago, when, as has been before observed, there is reason to believe no animal in the perfect form of the modern fox-hound was to be found in this or in any other country. Judges of the animal, however, will be disposed to think with us, that there is much of the real character of the *hound* in the sentence we have quoted from this old writer; such as the long rather than round head; the wide nostrils (Pliny says they should be flat, solid, and blunt); and the dry, fox's foot. But the "bowed back" appears to spoil all, unless by it is meant that gentle rise in the loins which the judge of hounds admires, and without which, the late Mr Chute of the Vine, in Hampshire, who hunted that country for more than thirty years, gave it as his opinion, no hound was able to maintain his speed for an hour over hilly and *ploughed* countries when "it carries;"—a technical term for the earth clinging to the foot, which it will do after a slight frost on the preceding night; necessarily adding much to the natural weight of the hound. Beckford gives us the modern fox-hound, and perfect, with the exception of the mention of one or two material points. "His chest should be deep," says he, "and his back broad;" but he has omitted a point much thought of by the modern sportsman, namely, *the back ribs*, which should also be deep, as in a strong-bodied horse, of which we say, when so formed, that he has a good "spur-place," a point highly esteemed in him. Nor is either of these writers sufficiently descriptive of the hinder legs of the hound; for although the "large haunch and well-trussed thigh" of the former denote power and muscle, nevertheless there is a length of thigh discernible in first-rate hounds, which, like the "well let-down hock" of the horse, gives them much superiority of speed, and is also a great security against laming

themselves in leaping fences, which they are more apt to do when they become blown, and consequently weak. The fore legs "*straight as arrows*" is an admirable illustration of perfection in those parts, by Beckford; for, as in a bow, or bandy-legged man, nothing is so disfiguring to a hound as his having his elbows out, which is likewise a great check to speed. In some countries the round, cat-like foot is indispensable, and agreeable to the eye in all; but we would not reject a well-shapen puppy in other respects for somewhat of an open foot, provided his ancles or fetlocks were good, *a point we consider of the greatest consequence to all quadruped animals.* The shoulders of the fox-hound should resemble those of the horse—oblique, but at the same time strong; for a narrow chested hound is almost certain to get shaken by hard work, and consequently unlikely to endure beyond his third season.

As Beckford recommends the small head, we may presume the form and fashion of this point began to be changed in his time, and has, we think, been carried to too great an excess in the fox-hound of the present day, particularly in one or two kennels (the Belvoir, for example), where very short, as well as small heads, are a leading characteristic. For ourselves, we like some length of head in the fox-hound, not being able to divest ourselves of the idea of a cross with the pointer when we see him with a short head and a snubbed nose. Beckford also says the neck should be thin. We would add, *moderately thin.* We dislike a thin neck in any animal but the cow or the stag; at the same time we dislike a short, thick neck in a hound. His neck should be moderately long and moderately thick, with the muscles clearly developed; it should rise gracefully out of his shoulders, with a slight curve or crest, and, to completely satisfy the eye, should be quite free from exuberances of flesh and hair on the lower side of it, called by huntsmen "*chitterlings*" or ruffles, the hound having them being termed "*throaty*;" although there are numerous exceptions to this rule, as some of the best hounds England ever saw have been throaty; and although we are aware that one individual instance will prove neither the rule nor its exception, we can go as far back as to Mr Meynell's famous stallion hound Gusman, for as throaty, and yet as good a fox-hound as we ever remember to have seen. We agree with Beckford, that the "tail," now called stern, of a hound, should be "thick," and moderately "brushy;" and if well carried, it is a great ornament to a fox-hound. But there is one part of it which the master of a pack likes to see nearly deprived of its covering, and that is its tip, which, when in that state, is an infallible proof of a hound being a good, and not a slack, drawer of covers. As a perfect model we refer to the portrait of Nosegay, a hound belonging to the Earl of Kintore. Plate CCXCIV.

But to return to breeding the fox-hound. In the breeding of some animals, beauty of shape is often dependent on the caprice of fashion, or the taste of the breeder; but in the breeding of hounds no such latitude can be given, for here beauty, or symmetry of shape, is alone in reference to utility, and adaptation of parts to the purposes to which they are to be applied. Yet the breeder of fox-hounds has one point further to go; he must, as we before remarked, guard against *propensities*, which run in the blood of these animals perhaps stronger than their good qualities, and will sooner or later break out in their work. In the election then of a dog for a bitch, or a bitch for a dog, these matters must be attentively considered; and no man should breed from hounds of either sex that come under any of the following denominations, viz. not of a docile sort, but very difficult to enter to their game; given to run mute; to hang on a scent; or to be skinkers; not

Hound.

Hound. only not true to the line, but given to run riot either in cover or in chase; and, above all things, if found evidently deficient in nose, and not able to run at head. Good constitution should likewise be looked to; but we would not reject a stallion hound, or a brood bitch, merely for being slack drawers, or for not being always at the head in chase, provided they were well bred, of good form, and true to the line, in cover, and out.

As to the proper combination of form, that must be self-evident to the breeder of hounds. If a bitch is a little high on her leg, or light, she should be put to a short-legged, strong dog, and of course *vice versa*; if rather light in her tongue, that defect may be remedied by an opposite property in a dog. The defects in legs and feet can only be remedied by such means; and fortunate is it for the owner of an otherwise perfect and excellent bitch, that such remedies are at hand. Length and shortness of frame, as well as coarse points, are all to be obviated and altered in the same way, making allowance for the fact, that the laws of nature are not *always* certain. Constitution can likewise be mended by having recourse to that which is good (and none so easily detected as the dog's); and colour changed if required. In fact, as Beckford says, "It is the judicious cross that makes the complete pack;" and it was the remark of this practical writer, and therefore high authority amongst sportsmen, that "he saw no reason why the breeding of hounds may not improve till improvement can go no further." The question may be asked, is not his prediction verified?

But the act of crossing hounds, as indeed all other animals, although never thoroughly divested of chance, is one of more difficulty than most people would imagine, and one indeed which, by its results, would often baffle, if not puzzle, the profoundest of our modern physiologists. Our space will not admit of our going at length into this intricate subject, but great mistakes, we conceive, have been made by masters of fox-hounds, in breeding too much in-and-in, from nearest affinities, instead of having recourse to an alien cross. This was peculiarly apparent in the packs of two very celebrated masters of fox-hounds, the late Sir Thomas Mostyn, Bart., and the late John Corbet, Esq. of Sundorne Castle, Shropshire (the former of whom hunted Oxfordshire, and the latter Warwickshire, each for upwards of thirty years), who bred in-and-in, Sir Thomas from a bitch called *Lady*, and her produce; and Mr Corbet from a hound called *Trojan*, and his produce, to the great injury of their respective packs. We are aware it is asserted that a pack of fox-hounds should have the appearance and character of being of one family; but this expression is not to be taken in its literal construction. It is in the conformity of their character and appearance that they should bear a close resemblance to each other, and not in their close consanguinity. It is true, the celebrated pack of Mr Warde, the present father of the field, and a master of fox-hounds for the unparalleled period of fifty-seven years, which sold for two thousand guineas, only contained, in 1825, three couples of hounds not of his own blood, and those the produce of one stallion hound, Mr Assheton Smith's *Reubens*. But we have no proof of Mr Warde's hounds being better for adhering so closely to his own sort; on the contrary, it is the opinion, we believe, of the sporting world, reluctantly admitted, in consideration of the well-merited celebrity of their owner, that, latterly, the slackness of this renowned pack, unrivalled in fine form, was to be attributed to that circumstance. On the other hand, the rare but valuable combination of dash and nose, a match for the cold and ungenial Oxfordshire hills, for which the Duke of Beaufort's pack has been so long conspicuous, has been traced to his Grace's late huntsman, Philip Payne (said by Colonel Cook, in his *Observations on Fox-Hunting*, to be "the best judge of breeding hounds

in the kingdom"), going from home for his blood, and sending his bitches to the celebrated stallion hounds of the best kennels within his reach. This, however, it must be remembered, is not within the command of every man's purse, the expenses attending sending bitches to a distance, under any circumstances, being heavy; as not only must they be placed under the care of a trusty servant on their journey, but there are other occult expenses attending them, which none but masters of hounds are aware of. It is, however, a notorious fact, that the produce of some stallion hounds, if they have a fair chance by the bitch, seldom fail in turning out well; and perhaps the most signal instance of "like begetting like" in this species of animal, is that of Mr Osbaldeston's Furrier having been the sire of an entire pack in that gentleman's kennel when he hunted the Quorn-don country in Leicestershire, which he would occasionally take to the field, amounting to more than thirty-five couples, although, as may be supposed, they were generally mingled with the rest of his kennel, which at that period contained a hundred couples of hounds. These Furrier hounds gave little trouble in the entering of them, and proved very true line-hunters, and every thing that fox-hounds should be. The annals of fox-hunting likewise record similar instances of the peculiar properties of stallion hounds transmitting their virtues to many succeeding generations, especially in the instances of the Pychley Abellard, the Beaufort, and the New Forest Justice, Mr Ward's Senator, Mr Meynell's Gusman, Mr Musters's Collier, Mr Corbet's Trojan, Lord Yarborough's Ranter, with many others of more recent days, but too numerous to mention here.

The size, or, we should rather say, the height, of a fox-hound, is a point upon which there has been much difference of opinion. The long-established pack of the late Mr Chute were at least three inches below the standard of his neighbour Mr Villebois's large pack; also as much below that of his Grace the Duke of Cleveland, who had for many years also a large and a small pack; and at least four inches lower than Mr Warde's, in whose kennel were hounds full twenty-six inches high. Various arguments are made use of by the advocates of large and small hounds. Those of the former assert that they get better across a deep and strongly fenced country than smaller ones; whilst the admirers of the latter insist upon their being better climbers of hills, more active in cover, and quicker out of it when their fox is gone; and are oftener found to be perfect in form and shape. As to uniformity in size, how pleasing soever it may be to the eye, it is by no means essential to the well-doing of hounds in the field, and has been disregarded by some of our first sportsmen, the great Mr Meynell for one, who never drafted a good hound for being over or under size; neither did Mr Assheton Smith, when he succeeded to his, Mr Meynell's, country. The great object of both was to breed them with muscular power and bone, combined with as much symmetry as could be obtained; and to be equal in speed and good qualities, rather than equal in height.

We consider the proper standard of height in fox-hounds to be from twenty-one to twenty-two inches for bitches, and from twenty-three to twenty-four for dog hounds. The minimum and maximum size of the last fifty years would have been found in the kennels of Mr Chute and Mr Warde; the Duke of Cleveland and Mr Villebois coming next to Mr Warde in what may be called the maximum class. Mr Chute's motto over his kennel door was, "*multum in parvo*," which was his great aim; and although very full of power, and particularly neat in appearance, his hounds did not more than average twenty-one inches. On the other hand, many of Mr Warde's bitches, the most splendid animals of their kind and sex the world has ever yet seen, were better than twenty-three, and some of his dog hounds twenty-six inches high, which

Hound. was about the standard of the original Devonshire stag-hounds. It may be said of hounds, however, as has been said of horses, that their height has little to do with their size, as far at least as their powers of action are concerned; and doubtless in all animals that labour, a medium height is the best.

The amount of hounds bred annually will depend on the strength of the kennel, and the number of days hunting in the week which the country they are intended for requires. From sixty to eighty couples are about the complement for a four-days-a-week country, which will require the breeding of a hundred couples of puppies every year, allowing the usual diminution of the entry by mal-conformation, under size, and that bane to the kennel, the distemper, which often takes off a moiety of them. As the period of gestation in the female dog is somewhat over two calendar months, the fox-hound bitch should, if she can be spared, be put to dog in January, as then she will litter in the spring, when the weather is comparatively mild (cold being destructive of young animals of this sort), and the puppies will then come early into kennel, generally be of good size, and powerful; and be entered without loss of time. The tips of their sterns being pinched off, and their dew-claws cut, whelps should be taken to their walks at about two months old; and if to one where there is plenty of milk or whey, they will be the better for it. Whelps walked at butchers' houses grow to a great size, but they are apt to be heavy-shouldered and throaty, and otherwise out of shape. If possible to avoid it, puppies should never be tied up, as perpetually drawing at the collar-chain throws their elbows out, and otherwise damages their legs, particularly by spreading their feet, and altering the form of their ankles, although it is sometimes almost impossible to avoid it, from their proneness to do mischief. If old bitches are bred from, they should be put to young dogs, and of course *vice versa*; and a bitch should not be worked for at least the last month of her time; and immediately on her whelps being taken from her, a dose of physic should be given her.

It is said that the dog in a state of nature is subject to few diseases, and for these he finds his cure by an instinctive faculty; in a domesticated state, however, he is subject to many, and some of an awful nature, which may be classed among the *opprobria medicorum*, no certain remedy being discovered for them. Amongst these is one called the distemper, not known by our forefathers, but at present become a sort of periodical disorder in kennels, to the destruction of thousands of young hounds annually. The first symptoms of this disease are, generally, a dry husky cough; want of appetite, and consequent loss of flesh; extreme dulness, and a running from the nose and eyes. As the disease advances, it is attended with twitchings of the head, while the animal becomes excessively weak in the loins and hinder extremities; is greatly emaciated; runs at the eyes and nose, and smells very offensively. At length the twitchings assume the appearance of convulsive fits, accompanied with giddiness, which cause the dog to turn round; he has a constant inclination to dung, with obstinate costiveness at one time, or incessant purging at another. Finally, the stomach becomes extremely irritable; every thing swallowed is instantly thrown up; and the dog generally dies in a spasmodic fit.

For the cure of this disorder many remedies have been prescribed; but as none of them can be relied upon as specific, we decline giving them,¹ and prefer transcribing the following observations of an intelligent and experi-

enced huntsman in the service of a noble duke, accompanied by a comment upon it by a noble lord, also a practical sportsman, hunting his own fox-hounds.

"As soon," says the former, "as the young hounds come in from quarters, a sharp look-out is kept for the distemper; and as soon as any of its symptoms appear, a dose of cold-drawn castor oil is given, and the following morning a dose of calomel and jalap. About seven grains of the former and twenty of the latter made into a bolus, and put over their throats before they have tasted any thing, and their heads coupled up above the level of their bodies for two hours, so as to prevent them from vomiting up the medicine, which they are certain to do if this is not carefully attended to. They are then to have their broth and their meat. The oil and bolus to be repeated in a day or two as symptoms require; that is to say, if the fever runs high, repeat the bolus, and, if only to keep the bowels open, the oil in small quantities. Indeed the great thing is attending to circumstances, and acting accordingly; as, for instance, nothing can be more different than when flux attends the distemper, and when fits and obstinate costiveness is the case. I believe, however, that at first a good scouring in both cases is of service. In flux, of course, don't repeat the calomel, but take moderate means to stop it, as flux in a minor degree tends to keep off both fever and fits. To allay the flux, arrow-root, or boiled milk and flour porridge. There is no doubt that laudanum is the surest method to stop it, but then it is sure to end with fits. Fits at the beginning are no bad sign, and at the end nothing can be worse. I never either approved of bleeding or vomiting in the distemper; the first weakening too much, the latter creating and adding to the irritableness of their stomachs."

"With the foregoing plain, sensible, and simple treatment," says the noble lord in his comment on the foregoing observations, "my junior experience perfectly agrees with the opinion of; but I revert to what he justly adds about 'circumstances,' and differ with him about the bleeding, as I think a good scouring out, and bleeding, before any thing symptomatic of the disease has fairly begun, highly commendable. But, *vice versa*, for instance, if you bleed after the disease has fairly taken root, the lungs, nine cases in ten, being affected, it is ten to one you kill the dog; but if done early in the day, I cannot but think it is of much service, prevents fever, and in many cases makes the disease less violent. I think perhaps the treatment of whelps, after they come in from their healthy walks to the close confinement of sometimes an ill-kept kennel, is the cause of the distemper taking more violent hold of them than it otherwise would do; and amongst the hundred pretended receipts of many huntsmen, the remark is a justly correct one, of what *may* cure one dog will kill another. But here and his 'circumstances' put you right. What might be advisable would be this: As soon as your puppies come in, look them attentively over; divide the well-walked whelps from those that have been ill walked; bleed and scour well out the fat lot, paying of course attention to their diet, cleanliness, and exercise; and cherish the poor lot by the best food, giving them the castor oil without the calomel or the lancet. But a lot of well-bred fox-hound whelps are not to be left to the care of a whipper-in or a boiler, unless he is a perfectly sober, attentive, experienced man; for in this disease in the animal, as in the human species, the patient must be most attentively and closely watched."

¹ Colonel Cook says he has "sometimes" found the following efficacious:—Calomel three grains, cathartic ext. seven ditto, soap seven ditto, emetic tartar one half grain. Make three pills, and give one every other day. Vaccination was tried in some kennels as a preventive, but it failed, and was abandoned.

The management of hounds in kennel has undergone great changes for the better since Mr Beckford's day; and, divesting the mind of the inferiority of horse flesh over cow or bullock flesh, the food of hounds, both in its nature and the cooking of it, is such as man might not only not reject, if necessity compelled him to have recourse to it, but such as he would thrive and do well upon. It is a common expression, that "any thing will do for dogs," and experience informs us they will exist upon very miserable fare; but hounds, *to be in condition*, must have every thing good of its kind, and also well cooked. Were a master of hounds, or huntsman, of the present day, to follow Beckford's advice, of putting his hounds to a horse fresh killed, after a hard day, his brother sportsmen would think him mad; nor is there scarcely any thing now used in our first-rate kennels but the best oatmeal (Scotch or Irish is the best), one year old, and well-boiled horse flesh, quite free from taint. The meal is put into the copper when the water boils, and should be boiled up a second time, and, in all, for at least two hours; for nothing is worse for the wind of hounds than meal not thoroughly boiled. When taken out of the boiler, it forms a substance resembling coarse rice pudding; and when the fresh flesh, which is shredded, and the broth in which it is boiled, are added to it in the trough, and very well mixed, it forms the best and highest food that can be given to hounds. In some kennels, after the example of that famous huntsman the late Thomas Oldacre, the meal and flesh are boiled up together, with the idea that more of the virtue of the flesh is then imparted to the meal than when it is merely mixed with the broth; but the practice is not general. But such is the difference of constitution in hounds, and the aptitude of some, over others, to gain flesh, or become foul, persons who are particular as to the condition of their pack have troughs filled accordingly, that is, one with thinner food than another, for hounds of the former description. No animal in the world is so soon up and down in his condition as the dog; and, strange as it may appear, the effect of two or three extra mouthfuls of thick meat will be visible on some hounds on the second day after they have eaten them. Nevertheless, the dog being strictly a carnivorous animal, cannot stand hard work without flesh, which he should have a fair allowance of once a day, according as his constitution may require it. Some masters of hounds, however (the justly celebrated Mr Ralph Lambton one of them), do not feed with flesh on the day before hunting, giving only meal and broth; and this on the supposition that the faculty of scent is more delicately susceptible without it. Young hounds lately come from walks should be fed twice in the day, as they do not always, at first, take to kennel food.

Colonel Cook is thus explicit and correct on the subject of feeding hounds, and their condition, the result of many years experience, and great attention to the kennel. "It is quite certain," says he, "a hound too high in condition cannot run a burst, neither can a poor half-starved one kill an afternoon fox; a hound, therefore, cannot be considered as fit to be brought out, if he is either too high or too low. I like to see their ribs, but their loins should be well filled up, and they should be hollow in their flanks: he that is full in the flanks is sure to be fat in the inside, and consequently not fit for work. The feeding of hounds, and the bringing them to cover, able to run a burst, or kill an afternoon fox, is not altogether a thing so easy as some people imagine; in fact, it requires nearly as much trouble to get a hound into condition as it does a horse; and if the greatest attention is not paid to this particular, you cannot expect to catch many foxes. It is the condition of a hound which gives him the advantage over the

animal he hunts. Nevertheless their constitutions differ as much as those of the human species; some require thick food, others thin; the same quantity which may be requisite for Ranter, if given to Rallywood, would render him unable to run a yard. Some time before hunting (say about three weeks), they should have plenty of walking exercise, and salts given them once a week. If a hound is at any time very foul, the following receipt is very efficacious:—Three grains of *Æthiops mineral*, five grains of calomel, made into a ball: the hound must of course be carefully kept from cold water."

In the summer time, when hounds are out of work, they do not require flesh more than twice a week, and succulent vegetables in their food are at this time useful. They are also physicked and bled at the close of one season, and before the commencement of the next; and, if necessary, dressed over with a sulphureous mixture during the idle months. But some owners of hounds, and huntsmen, object to dressing them, conceiving that it opens their pores too much, and subjects them to rheumatic affections.

One recent and great improvement in kennel discipline is, a small reservoir of water within the walls, of sufficient depth to cleanse the legs of hounds, but not to wet their bodies, which they are made to walk through immediately on their coming home. Upon being turned into their lodging room, they commence licking themselves dry, which, as a dog's tongue is proverbially called his "doctor," is most beneficial to their feet, by clearing them of sand or gravel, as well as healing any trifling wounds which they may have received. In the Duke of Cleveland's kennel, this reservoir is filled with broth, which, in addition to its healing properties, induces hounds to lick their feet still more than water does. In flinty countries, the feet of hounds are very frequently wounded, which is a great disadvantage to those a little inclined to do wrong, as they are compelled to miss their turn, and so get above themselves. It also obliges a gentleman to keep a larger number of hounds than this country would otherwise require.

Hounds are fed on the day before hunting about eleven o'clock A. M., but some delicate feeders require to be let into the troughs a second time. After hunting, they are fed as soon as they have licked themselves dry, which, by the warmth that arises from their bodies when shut up, is very soon effected; and in the summer time it is reckoned safer to feed them in the evening, as they then rest quieter throughout the night, and are less disposed to quarrel.

Colour of Hounds.

Independently of the justness and elegance of figure in animals, which adapt them to the uses or ends of their creation, nature has been profuse in the adornment of the surface of their bodies by various beautiful colours. But in proof that the Creator never errs from his design in any of the qualities he has communicated to his creatures, and that he adorns not merely for the sake of ornament alone, these beauties conferred upon them are found greatly to contribute to their well-being; for with them they have received the consciousness of possessing, and a desire to preserve them. In fact, it is this which attaches them so closely to their being, and renders them so attentive to cleanse, ornament, and take care of themselves, as we every day see they do; and to preserve, in all its lustre, the enamel which nature has given them. And we may go even one step farther than this. An accurate observer of animals will perceive, that they are not only conscious of their own beauty, but are capable of beholding and admiring it in others. This is undoubtedly the case with regard to both sexes of the same species: never are they so atten-

Hound. tive to display the graces which nature has bestowed upon them, never are they so ostentatious, as when they are together, which is evident from their gambols and frolics; and, if we may judge of them from our own feelings, how greatly must this disposition contribute to their mutual felicity.

In no animal is variety of colours more conspicuous than in hounds, and it adds greatly to their appearance when we see them in a body in the kennel, but still more so in the field. The prevailing ones with the fox-hound are these: Tan (not common); black (not common); black and white and tan (the most common); milk white (not common); red (very rare); blue (the same). Next come the blended, or mixed colours, known in the kennel as "pies." There is the red pie; the blue pie; the yellow pie; the grey pie; the lemon pie (very handsome); the hare pie; and the badger pie, which last is very characteristic of the fox-hound. The fox-hound is sometimes ticked, that is, his coat is dotted with small white specks on a dark ground, but he is rarely what is called "mottled" (motley); and, we believe, what is known by "a blue mottled hound" is not to be found among fox-hounds, being peculiar to harriers and beagles. There was for many years a pack of "blue mottled" harriers kept near Croydon, in Surrey.

It is asserted that the original colour of the English fox-hound was fallow, or pale yellow (Shakspeare speaks of a fallow *greyhound*); and we are inclined to this opinion from its being spoken of in several old works upon hunting, as the "best colour for hounds that hunt the hart or roe;" and there can be no doubt of our fox-hounds being originally descended from that breed of dog, be it what it may. As we know that a recurrence to original colour frequently takes place in animals and birds, after its disappearance throughout several generations, this may probably account for the various pied hounds we see in kennels, the produce of hounds of distinct colours, perhaps merely black and white, and often of those nearly black. Moreover, at Ashdown Park, in Berkshire, an old seat of the Craven family, there is a picture of a pack of fox-hounds, above a hundred years old, in which every hound is either fallow coloured or red.

The Tongue, or Cry of Hounds.

During the early stages of mental progress, the ear is of more importance to man than the eye. Indeed at all times sounds, by association, become the signs of ideas; and the great variety in the voice of nature must have been designed to meet the peculiar tastes and purposes of the countless multitudes that dwell on the face of the earth. That the cry of hounds is a voluntary noise, proceeding from a powerful organic impulse, is quite apparent, as is also the purpose for which the impulse is given; namely, to announce their having discovered the scent of an animal, either obnoxious to their notice, or desirable as food, and by calling their straggling companions together, and uniting their forces, the better to enable them to secure their prey. On the other hand, here is mercy shown to the prey they are in pursuit of. The tongue of the hound gives notice of his approach; and he does not pounce upon his victim as the silent greyhound does, which Grattius, in his poem on coursing, alludes to in the following verse:—

"Sic canis illa suos taciturna supervenit hostes."

But the cry of hounds, melodious and heart-cheering as it even now is, has lost much of its poetical interest, from the change man has made in the natural organization of

the animal from which it proceeds; and we shall never again hear of a master of a pack, after the manner of Addison's knight, returning a hound that had been given to him as an "excellent bass," whereas the note he wanted was a "counter-tenor." The great Beckford, however, was something of the worthy knight's opinion; for he says, in his *Thoughts upon Hunting*, "If we attended more to the variety of the notes frequently to be met with in the tongues of hounds, it might greatly add to the harmony of the pack." This is well in theory. The natural organization of the dog is musical; he is, in fact, a victim to musical sensibility; and we may reasonably suppose that the notes of his companions in the chase may be as pleasing to himself as to his huntsman; but we more than doubt whether a huntsman of this day would draft a highly-bred and beautiful young bitch, as good too as she looks to be, merely because her light, fox-hunting tongue might be somewhat drowned, and now and then lost, in the general chorus of the pack. He would rather say, "*Let every tongue be a fox,*"¹ and I'll leave the rest to chance." But, on a good day for hearing it, what *natural* sound is more delightful and animating than that of hounds in full cry, in the deep recesses of an echo-giving wood? Neither would those writers who have availed themselves of the beauty and sublimity which allusions to sounds in nature stamp on their various compositions, have at all descended from their eminence if they had, like Shakspeare, delighted as much in bringing the soul in contact with such a sound as this, as with the rolling of the thunder, or the howling of the storm.

The Age of Hounds.

The dog exhibits no exact criteria of age after the first two years, during which time the whiteness and evenness of his teeth are a pretty certain test of his not exceeding that period. An old hound, however, cannot be mistaken if only looked in the face, where he shows old age nearly as distinctly as man. As to the length of services of hounds, that depends upon circumstances. Few are found in a kennel after their eighth year, and *very few* after their ninth; and not many hard-working hounds can "run up," or keep pace with the rest, after their fifth season at most. Hounds are in their prime in the third and fourth years; and although there are a few instances, such as Sir Richard Sulton's Lucifer, the Beaufort Nector, and the Cheshire Villager, of their hunting in their twelfth, eleventh, and tenth year, the average of their work cannot, we fear, be placed beyond four seasons. Old hounds are useful in the field, but when they cannot run up with the pack, they should be drafted. The perfection of a pack consists in the great body of it being composed of hounds *quite in their prime*.

Separation of the Sexes.

The separation of the sexes in the kennel *and in the field* is one of the late innovations in the sporting world, and generally considered as a good one. In the first place, it pleases the eye to see a pack of hounds nearly all of a size, which cannot be the case when it is composed of dogs and bitches mixed; and the character of the animal is likewise more uniformly displayed when confined to one individual sex. Secondly, by the total separation of dogs and bitches in the kennel and in the field, the former are less inclined to quarrel, and the latter are more at their ease, than when subject to the constant, and, at times, importunate solicitations, of the male sex. Of their performances in the field, however, when taken into it separately, some difference of opinion exists; and each

¹ "Every tongue a fox," is a well-known sporting phrase.

Hound. sex has its advocates. With a good fox before them, and a warm scent, bitches are decidedly quicker, and more off hand in their work, than dog hounds; but with a colder scent, or at fault, the general opinion is, that they are not so patient, and more given to over-run it. That they are superior in "*dash*," which, Beckford says, is the distinctive characteristic of a fox-hound, we believe is universally acknowledged; and a celebrated master of hounds,¹ who hunted them himself several seasons in Leicestershire, has been heard frequently to say, that if his kennel would have afforded it, he would never have taken a dog hound into the field. That, in the canine race, the female has more of elegance and symmetry of form, consequently more of speed, than the male, is evident to a common observer; but there is nothing to lead us to the conclusion, that, in the natural endowment of the senses, any superiority exists. It is however remarkable, that the Latins, when speaking of hunting, or "sporting dogs," as we call them, generally use the feminine gender, one instance of which is to be found in the second ode of the fifth book of Horace (*multa cane*), which ode every sportsman ought to read, as it gives so pleasing a picture of a country life.

Names.

The naming of hounds and horses has nearly exhausted human invention, as well as classical research. Beckford furnishes a list of more than eight hundred names for hounds, alphabetically arranged. But the naming of hounds is somewhat under metrical control; for it is not only confined to words of two and three syllables, but their quantity, or rather their time, must be consulted. For example, a dactyl, as *Lucifer*, answers well for the latter; but who could holla to *Aurora*? a trochee, or an iambus, is necessary for the former, the spondee dwelling too long on the tongue to be applied smartly to a hound. But there ought to be a nomenclator, as of old, at every kennel door; for it is but few persons unconnected with a pack that can recollect their names until after a rather long acquaintance with them, from the great similarity of form, character, as well as sometimes of colour, in old-established kennels. "How is it possible," said a young master of fox-hounds a few years ago, "that I should distinguish every hound in my kennel by his name, when I find *three* spots on one side of their body, and *five* perhaps on the other?" There have been, however, and still are, persons who can see a large kennel of hounds *once* drawn to their feeding troughs, and call them all by their names afterwards, the result alone of a keen and practised eye.

The price of hounds is strangely altered within the space of half a century, or less; and on this subject we cannot do better than quote Colonel Cook. "Hounds," says he (p. 6), "have always been much undervalued; we sometimes hear of eight hundred or even a thousand guineas as the price of a hunter, and the sum of three or four hundred is often considered as a mere trifle; whereas a pack of hounds, on which every thing depends, was only considered worth a few hundreds. Yet Shakspeare himself appears to have known the value of a hound; for in his "Induction" to the *Taming of the Shrew*, a nobleman returned from hunting thus speaks of his hounds with delight to his huntsman:

Nobleman. Huntsman, I charge thee, tender well my hounds;
Brach Merriman,—the poor cur is emboss'd,
And couple Clowder with the deep-mouth'd brach.
Saw'st thou not, boy, how Silver made it good,
At the hedge-corner, in the coldest fault?
I would not lose the dog for twenty pound.

Huntsman. Why, Belman is as good as he, my lord;
He cried upon it at the meekest loss,
And twice to-day pick'd out the dullest scent;
Trust me, I take him for the better dog.

"The sum of twenty pounds for a single hound in Shakspeare's time," continues the colonel, "and that not the best in the pack either, was no inconsiderable price. I am not alluding to 'a lot of curs;' but surely a well-bred, established pack of fox-hounds, including brood bitches, and puppies at walk, must be cheap at a thousand or twelve hundred pounds."

Now the value of anything is what it will fetch; and how far an established pack of fox-hounds is cheap at a thousand or twelve hundred pounds, is a matter of consideration with reference to concomitant circumstances; but that they will have cost the seller a great deal more, there can be no doubt. We should put the average price at something less than either of the above sums, although, within the last dozen years, several packs have been sold for the former sum; and the justly renowned one of Mr Warde, the present Father of the Field, fetched two thousand guineas; and the late Lord Middleton gave Mr Osbaldeston the same sum for ten couples of hounds out of his kennel.

The Harrier.

The modern harrier bears no greater resemblance to the one in use fifty years back, than the hunter of the present day to that ridden by our grandfathers. In fact, he is now nothing less than the fox-hound in miniature, which it is the endeavour of all breeders to have him. Their qualities also are as opposite as their form, the one delighting to dwell upon the scent, the other a little inclined, perhaps, to the other extreme. But the taste of the day for all sports of the field would not endure the tedious exactness of the old psalm-singing harrier; and not only in point of diversion, but on the score of the *pot*, the balance is greatly in favour of the improved variety. Before the old-fashioned harrier, the hare had time to play all sorts of tricks, to double on her foil, and so stain the ground that she often escaped by such means; whereas the modern hound, if the scent be tolerably good, forces her from her foil to fly the country, and very often beyond her knowledge, when a good straightforward run is the almost invariable result. The observation of Mr Beckford holds good here. He could not, he said, imagine a hound too *well* bred to show sport, and kill his game; but he could readily conceive the reverse, when the game ran stout and well.

To Sir John Dashwood King, Bart. of West Wycombe Park, Bucks, is the credit due for what may be termed the living model of the present improved harrier; and so characteristically stamped are his sort of hound, now widely spread, that they are recognised by a sportsman at the first glance. Their standard height did not exceed eighteen inches, and therefore, in that respect, they were not an overmatch for their game; but from the great equality of their size and speed, combined with rare hunting qualities, they killed more hares, with good runs, than any other pack in the kingdom, and for many, many years in succession certainly "bore the bell." Sir John kept them more than thirty years, at Bourton-on-the-Hill, Gloucestershire, near the four-shire stone on the Oxford and Worcester road, where his father kept them before him; hunting partly in the vales of Warwickshire and Worcestershire, and partly over the Cotswold Hills, which latter country is famous for the stoutness of its hares, frequently standing an hour before this celebrated pack, after having been driven be-

¹ Sir Bellingham Graham, Bart. of Norton Conyers, Yorkshire.

Hound. yond their knowledge by their *pressing* method of hunting up to them, a method quite unpractised by the old long-eared harrier. The parent stock of this pack was a small fox-hound from the Duke of Grafton's kennel, called Tyrant, whose blood, form, and character, were strikingly apparent throughout; and so great was its celebrity, that it fetched the highest price ever known to be given for harriers, namely, seven hundred guineas, by Lord Soude's of Rockingham Castle, Northamptonshire. Sir John, however, deserved success. He bred upwards of seventy couples of hounds every year, and had an establishment of horses, &c. nearly equal to fox-hounds. The hare-hounds bred for many years by Mr Yeatman of Stock House, Dorsetshire (who lately resigned the Blackmore vale country, in which he hunted foxes), came next to Sir John's in the true form and character of the modern harrier.

The Stag-Hound.

The English stag-hound is now known only by name, as there are none of the breed kept for the purpose of hunting the wild stag; and such deer as are turned out before his majesty's, and the few other packs that follow this game, are hunted by fox-hounds of the highest blood that can be procured. And the change is a good one; for although the English stag-hound was a noble animal of his kind, he was not sufficiently speedy, nor perfect in his work, to satisfy the present taste, and he was likewise too much given to dwell on the scent in chase, as well as of very delicate constitution in kennel. He is originally supposed to be the produce of the old English blood-hound, by a cross of some kind of greyhound, such as the Highland deer-greyhound, approximating his own form. At all events, it is certain that the former, the blood-hound, was the dog first made use of in hunting deer in England; and it is probable that, as the taste for following hounds on horseback increased, a turn of speed was given to the original breed by a cross with a speedier sort. We may add, the old paintings of English stag-hunting favour this hypothesis.

The Beagle.

This variety of the dog is now nearly extinct, and for the same cause as the stag-hound. Time is at present considered as too precious to afford an hour at least, and perhaps two, to the hunting down one hare, which is now accomplished in a more off-hand manner, in twenty minutes. To an admirer of nature, however, and of the endowments given to inferior animals, the busy, intelligent, and highly-gifted beagle certainly affords a treat. His form, also, when not out at his elbows, is handsome in the extreme, and his perseverance in chase is exceeded by none. But he has one of the greatest faults that hounds can possess; he is noisy, and dwells upon the scent, whilst his game is flying the country before him. In fact, his only use or value now is (independently of being looked at and admired, for he is a perfect animal of his kind), to accompany a brace of greyhounds when a hare is wanted, and not ready at hand. There is, however, one pack of beagles kept in Dorsetshire, known as the Mountain Harriers, whose performances are much spoken of in the sporting world.

The Greyhound.

The greyhound has now lost his place in the catalogue of the dogs used in chase, neither can be classed as such, since man has deprived him of the necessary faculty of smell; but he was held in such high estimation in the middle ages, as to be considered as the peculiar companion of a gentleman. He never went abroad without these dogs; the hawk which he bore upon his fist, and the greyhounds which ran before him, were certain testimonies of

his rank; and in the ancient pipe rolls, payments appear to have been often made in these valuable animals. But at no period of his existence was the greyhound the symmetrically elegant animal we now see him, nor possessed of nearly so much speed; neither was the diversion of the leash at any time carried on with so much spirit as within the space of the last thirty years, in various parts of Great Britain. But the necessity for, or rather the cause of, the change in the form of the greyhound, may be traced to his being no longer, as formerly, made use of to course and pull down deer, but chiefly to exhibit his speed at our different spirited coursing meetings, for the various prizes contended for, as also in private matches.

The *Courser's Manual or Stud Book*, by Thomas Goodlake, Esq. (1828), has the following interesting passages on the alteration effected in this species of dog. "In the days of Elizabeth," says the author, "the greyhound seems to have been a fine and effective animal, but approaching more to the bony, wire-haired make of the Highland greyhound represented in the pictures of Edwin Landseer, and deficient in the symmetry and fine glossy coat which mark a high-bred kennel of modern times. It is probable, that during the early part of the seventeenth century, judicious crosses were made, partly from the beautiful Italian greyhounds, which we often see in family pictures, accompanying our fair ancestresses in their parks and plaisances, and partly from the stouter breed of dogs represented in Flemish hunting-pieces; and that even Persia and Arabia, whose greyhounds are not to be despised in point of form and speed, contributed their quota of blood; as it is shown by the history of Cromwell's Coffin Nail, that the wealthier gentry of that period spared no expense or pains in improving the more highly-prized breeds of sporting animals. If we mistake not, some of the pictures of Charles the First contain portraits of greyhounds approaching nearly in point of coat and shape to the present breed."

Speaking of the late Lord Orford, who, with respect to modern coursing, laid the foundation-stone of the celebrity to which it has arrived, and who, besides being celebrated for his greyhounds, established the first coursing club that we read of, at Swaffham in Norfolk, in the year 1776, the same writer says, "A few anecdotes of this noble patron of coursing may not be uninteresting. He was passionately fond of the sport; and as he was a man who never would do things by halves, but was zealous beyond measure in succeeding in whatever he undertook, he may be said to have made as much progress as possible in perfecting the breed of the greyhound, and encouraging an emulative spirit in coursing amongst his opulent neighbours, from the time he took it up till his death. Indeed, his extensive property, and his influence as lord-lieutenant of Norfolk, gave him the greatest means of accomplishing his favourite object. He could command such an immensity of private quarters, or walks as they are generally called, for greyhounds, that he bred largely, and few possessed the same advantages of selection. He is recorded as having at one time fifty brace of greyhounds; and it was his fixed rule never to part with a single whelp till he had had a fair trial of his speed; consequently he had chances beyond almost any other individual, of having a collection of very superior dogs. Intent on obtaining as much perfection in the breed as possible, he introduced every experimental cross, from the English lurcher to the Italian greyhound. He it was that first thought of the cross with the English bull-dog, in which he persevered in opposition to every opinion, until, after breeding on for seven removes, he found himself in possession of the best greyhounds at the time ever known; and he considered that this cross produced the small ear, the rat-tail, the fine, thin, silky

Hound.

Hound
||
Hours.

coat, together with that quiet, innate courage which the high-bred greyhound should possess, preferring death to relinquishing the chase." There is something curiously analogous in the sense conveyed by the concluding words of this extract. His lordship fell dead from his horse immediately after witnessing the triumph of his famous bitch Czarina, in a match at Swaffham, having been in vain admonished on the impropriety of taking the field in his then indifferent state of health; and his memory is introduced as a toast at most coursing meetings, as father and patron of the sport.

The Terrier.

The terrier is no longer the accompaniment to a pack of fox-hounds, and for the best of all reasons,—foxes are not nearly so often digged for as formerly; and his only use was, by his bay, to inform the diggers whereabouts the fox lay; and we suppose he took his name from his being so eager to get under ground. There is also a second rea-

Hound
||
Hours.

son why he is better left at home. He was seldom steady from wing, if he was from foot, and thus often the cause of riot. It was, however, a matter of astonishment to behold those which were very highly bred, making their way, as they did, to the end of the longest chases, over strong and wet countries, as well as through the thickest covers, and so often making their appearance at the end of them. At all events, if left behind, they were sure to find their way home in the course of the night, whatever the distance might be. One peculiarity of form was essential to their being sure of getting up to their fox, viz. not too full in the shoulder; and those whose colour was pure white, and who were broken-haired, were generally most esteemed by huntsmen. It was often their lot to lose their life, by scratching up the earth behind them, and cutting off their means of retreat; and they were now and then killed by a fox, the latter a rare occurrence. They were commonly entered to a badger, whose bite is more dangerous than that of a fox. (B. B. B. B.)

HOUNSLOW, a town, part of the parish of Heston, in the hundred of Ossulton and county of Middlesex, ten miles from London. It is on the great western road, and more post-horses are kept there than at any other town in England. Near to it are some considerable powder-mills, and also mills for rolling copper. On what was formerly Hounslow Heath, but now enclosed, there are extensive barracks for cavalry.

HOUR, in *Chronology*, an aliquot part of a natural day, usually a twenty-fourth, but sometimes a twelfth. Originally the word *hora*, or *ώρα*, comes, according to some authors, from a surname of the sun, the father of hours, whom the Egyptians called *Horus*. But others derive it from the Greek *ἀρῖν*, to terminate, or distinguish; and others again from the word *ὕρον*, urine, conceiving that Trismegistus was the first who settled the division of hours, from observing an animal consecrated to Serapis, named *cynocephalus*, which made water twelve times a day, and as often in the night, at equal intervals.

An hour with us is a measure or quantity of time, equal to a twenty-fourth part of the natural day, or nycthemeron; or the duration of the twenty-fourth part of the earth's diurnal rotation. Fifteen degrees of the equator answer to an hour, though not precisely, but near enough for common use. The hour is divided into sixty minutes, the minute into sixty seconds, and so on. The most ancient hour is that of the twelfth part of the day. Herodotus, (lib. ii.) observes that the Greeks learned from the Egyptians, amongst other things, the method of dividing the day into twelve parts. The division of the day into twenty-four hours was not known to the Romans before the first Punic war. Until that time they only regulated their days by the rising and setting of the sun. They divided the twelve hours of their day into four, namely, *prime*, which commenced at six o'clock; *third*, at nine; *sixth*, at twelve; and *none*, at three. They also divided the night into four watches, each containing three hours.

HOURS, *Horæ*, in the ancient mythology, were certain goddesses, the daughters of Jupiter and Themis. At first they were only three in number, Eunomia, Dice, and Irene; but to these were afterwards added two more, Carpo and Thallote. Homer makes them the doorkeepers of heaven, and Ovid allots them the employment of harnessing the horses of the sun.

HOURS, *Horæ*, in the Roman Catholic church, are certain prayers performed at stated times of the day, as matins, vespers, lauds, and the like. The lesser hours are, *prime*, *terce*, *sixth*, and *none*, and they are called *canonical hours*, as being prescribed by the canons of the church in

commemoration of the mysteries accomplished at those hours. These hours were anciently called *course*, *cursus*; and Mabillon has written a dissertation on them, entitled *De Cursu Gallicano*. The first constitution enjoining the observation of the canonical hours is dated in the ninth century; being found in a capitular of Heito, bishop of Basil, directed to his curates, importing that the priests shall never be absent at the canonical hours either by day or by night.

Hour-Glass, a popular kind of chronometer or clepsydra, serving to measure the flux of time by the descent or running of sand out of one glass vessel into another.

HOURIS, in modern history, is a name given by the Mahomedans to those females who are designed for the faithful in Paradise. These are not the same as those with whom they had lived on earth, but are formed for this purpose with singular beauty and undecaying charms. Islamism is not more distinguished from Christianity by its inherent character than by the rewards which it holds out to its faithful votaries. The latter is the religion of a civilised people, and is entirely spiritual: the reward which Jesus promises to the elect is that they shall see God face to face. In the Christian religion, therefore, every thing tends to mortify the senses, nothing to excite them. Islamism, on the contrary, is the religion of a people in the infancy of civilisation; it arose in a poor country, destitute of the necessaries of life, amongst a people fierce and warlike, who were incapable of being addressed through the medium of their understandings. Mahommed therefore appealed to the senses. He promised his followers odorous baths, rivers of milk, fair black-eyed houris, and groves of perpetual shade. The Arab, thirsting for water, and parched by a burning sun, sighed for shade and coolness, and was ready to do any thing for such a recompense. The religion of Mahommed may consequently be said to be a religion of promise; it appeals to the senses, it addresses the passions, it holds out the prospect of revelling in those pleasures which are most desired and pursued by men in whom the merely sensual predominates over the intellectual part of their nature. But Christianity, which sprung from a purer source, considered the rewards of a future life as insufficient to repress the vices, disorders, and crimes, which spring from the passions, and, superadding to its precepts a penal sanction, may justly be said to be a religion of menace. From these general principles may be deduced the opposite characters of the two religions; the one appealing only to the senses and the passions; the other addressing itself to the minds and consciences of mankind, and having for its grand object to reform, not to debase society.

House
House-
hold.

HOUSE, a habitation, or place built with conveniences for dwelling in. See **ARCHITECTURE** and **BUILDING**.

HOUSES, amongst the Jews, Greeks, and Romans, were flat-roofed, and had usually stairs on the outside, by which they might ascend and descend without coming into the house. Each house, in fact, was so laid out that it enclosed a quadrangular area or court. This court was exposed to the weather, and being open to the sky, gave light to the house. This was the place where company was received, and for that purpose it was strewn with mats or carpets for their better accommodation. It was paved with marble or other materials, according to the owner's ability, and provided with an umbrella of vellum to shelter them from the heat and inclemency of the weather. This part of their houses, called by the Romans *impluvium*, or *cava ædium*, was provided with channels to carry off the water into the common sewers. The top of the house was level, and covered with a strong plaster by way of terrace. Hither, especially amongst the Jews, it was customary to retire for meditation, private conversation, devotion, or the enjoyment of the evening breezes.

The Grecian houses were usually divided into two parts, in which the men and women had distinct mansions assigned. The part assigned to the men was towards the gate, and called *ἀνδρων*; the apartment of the women was the farthest part of the house, and called *γυναικων*. Jews, Greeks, and Romans supposed their houses to be polluted by dead bodies, and to stand in need of purification.

HOUSE, in *Astrology*, denotes the twelfth part of the heavens. The division of the heavens into houses is founded upon the pretended influence of the stars, when meeting in them, upon all sublunary bodies. These influences are supposed to be good or bad; and to each of these houses particular virtues are assigned, on which astrologers prepare and form a judgment of their horoscopes. The horizon and meridian are two circles of the celestial houses, which divide the heavens into four equal parts, each containing three houses, six of which are above the horizon, and six below it; of these, six are called *eastern* and six *western houses*.

A scheme or figure of the heavens is composed of twelve triangles, all called *houses*, in which are marked the stars, signs, and planets, so included in each of these circles. Every planet has likewise two particular houses, in which it is pretended that they exert their influence in the strongest manner; but the sun and moon have only one, the house of the former being Leo, and that of the latter Cancer.

The houses in astrology have also names given them according to their qualities. The first is the house of life, which is the ascendant, extending five degrees above the horizon, and the rest below it. The second is the house of riches; the third, the house of brothers; the fourth, in the lowest part of the heavens, is the house of relations, and the angle of the earth; the fifth, the house of children; the sixth, the house of health; the seventh, the house of marriage, and the angle of the west; the eighth, the house of death; the ninth, the house of piety; the tenth, the house of offices; the eleventh, the house of friends; and the twelfth, the house of enemies.

HOUSEHOLD, the whole of a family considered collectively, including the mistress, children, and servants. But the household of a sovereign prince includes only the officers and domestics belonging to his palace.

The principal officers of the household of the king of Great Britain are, the lord steward, the lord chamberlain of the household, the groom of the stole, the master of the great wardrobe, and the master of the horse.

The civil government of the king's house is under the care of the lord steward of the king's household, who, being the chief officer, is entitled to have all his commands ob-

served and obeyed. His authority extends over all the other officers and servants, excepting those of his majesty's chapel, chamber, and stable; and he is the judge of all crimes committed either within the court or the verge.

Under him are the treasurer of the household, the comptroller, cofferer, the master of the household, the clerks of the green-cloth, and the officers and servants belonging to the accounting-house, the marshalsea, the verge, the king's kitchen, the household kitchen, the acatery, bakehouse, pantry, buttery, cellar, pastry, &c. Next to the lord steward is the lord chamberlain of the household, who has under him the vice-chamberlain, the treasurer, the comptroller of the chamber; forty-eight gentlemen of the privy chamber, twelve of whom wait quarterly, and two of them lie every night in the privy chamber; the pages of the presence-chamber; the mace-bearers, cup-bearers, carvers, musicians, and others.

The groom of the stole has under him the eleven other lords of the bed-chamber, who wait weekly in the bed-chamber, and also the grooms of the bed-chamber, the pages of the bed-chamber, and back stairs, &c.

The master or keeper of the great wardrobe has under him a deputy, comptroller, clerk of the robes, brusher, &c. and a number of tradesmen and artificers, who are all sworn servants to the king.

The master of the horse has under his command the equerries, pages, footmen, grooms, coachmen, farriers, saddlers, and all the other officers and tradesmen employed in his majesty's stables.

HOUSING, or *House-Line*, in nautical language, a small line formed of three fine strands or twists of hemp, smaller than rope-yarn. It is chiefly used to seize blocks into their strops, to bind the corners of the sails, or to fasten the bottom of a sail to its bolt-rope, and the like.

HOUSING, or *Housee*, a cover laid over the saddle of a horse, in order to save it from the weather, dirt, and the like. The word is formed from the French *houssie*, which signifies the same thing, though it anciently denoted a kind of hood worn by country people.

HOUSSA is the name of an extensive portion of Central Africa, which, along with Bornou, bears the general name of Soudan, or Land of the Blacks. It consists of various petty kingdoms or states, which occupy territory stretching east and west from the upper course of the Yeou nearly to the Niger, but the boundaries of which on the south and north are imperfectly defined. This region appears in several respects to be superior to the countries on either side of it. It is less sultry, an advantage which it probably owes to its higher elevation. The face of the country bears marks of greater cultivation, the fields being covered with large crops of wheat, two of which are annually produced; and, to prevent the grain from being destroyed by insects, it is secured in granaries raised on poles. The soil is well watered by the river Quarrama or Zirmie, which, with several tributaries, flows westward to join the Niger. On its eastern quarter it is traversed by the Yeou, and on its southern by the Shary or Tschadda, which also falls into the Niger. Besides these natural supplies of water, artificial irrigation is diligently practised. The predominant people here are the Fellatahs, of whom we shall afterwards speak.

From information afforded by Major Denham, who travelled in this region of Africa, it appears that Houssa is divided into seven provinces or states, to each of which a prince or petty governor was appointed under the Fellatahs, the inhabitants all speaking one language. Over the whole a sultan holds supreme rule. The most fertile province is Kano, the most extensive is Zegzeg, the most warlike Ghoober and Zamfra, which two countries seem to constitute one province under the rule of the Fellatahs; the central province is Kashna or Kassina. Three others,

Houssa. of which our information is very indistinct, are designated Dor or Dowry, Ranoo, and Yareem. Captain Clapperton mentions a province called Guari, which may correspond to Yareem; and the same traveller speaks of Doura, in immediate connection with the southern part of Zegzeg, as if bordering on it. Another province is called Kotongra or Kotongkora, which may correspond to Ranoo.

Kano, the capital of a province of the same name, and the principal commercial city of Houssa, is situated in latitude $12^{\circ} 0' 19''$ north, and longitude $9^{\circ} 20'$ east. It may contain between 30,000 and 40,000 inhabitants, of whom a great proportion are slaves. This number is exclusive of strangers, who crowd thither during the dry months from all parts of Africa. The city is of an irregular oval shape, about fifteen miles in circumference, and surrounded by a clay wall thirty feet in height, having a dry ditch on both sides of it. There are fourteen gates made of wood, and covered with sheet iron, and these are regularly opened and shut at sunrise and sunset. A platform inside, with two guard-houses below it, serves to defend each entrance. The houses within the walls do not occupy more than one fourth of the ground enclosed, the remaining space being laid out in fields and gardens. The city is almost divided into two parts by a large morass, which stretches from east to west. This swamp is crossed by a small neck of land, which is overflowed during the rainy season, but in the dry season the market is held upon it. On account of this morass, and also of the many pools of stagnant water made by digging clay for building houses, the city is rendered very unhealthy. Captain Clapperton thus describes the houses of Kano.

"They are built of clay, and are mostly of a square form, in the Moorish fashion, with a central room, the roof of which is supported by the trunks of palm-trees, where visitors and strangers are received. The apartments of the ground-floor open into this hall of audience, and are generally used as store-rooms. A staircase leads to an open gallery overlooking the hall, and serving as a passage to the chambers of the second story, which are lighted with small windows. In a back court-yard there is a well and other conveniences. Within the enclosure in which the house stands, there are also a few round huts of clay, roofed with the stalks of Indian corn, and thatched with long grass. These are usually very neat and clean, and of a much larger size than those of Bornou. The governor's residence covers a large space, and resembles a walled village. It even contains a mosque, and several towers three or four stories high, with windows in the European style, but without glass or frame-work. It is necessary to pass through two of these towers in order to gain the suite of inner apartments occupied by the governor."

The great market, as already observed, is held upon a neck of land which intersects the morass. Here streets consisting of sheds or stalls of bamboo are regularly arranged, different places being allotted to those who traffic in different commodities. The latter consist of cattle, vegetables, fruits, the fine cotton fabrics of the country, goora or kolla nuts, which are called African coffee, and crude antimony, with which every eyebrow in Houssa is dyed. The Arabs also dispose of sundry commodities, such as cast-off dresses. The slaves, who constitute the staple article of trade, have a special market appropriated to them, consisting of two long ranges of sheds, one for males and the other for females. Here these poor creatures, drawn up in regular array, and dressed in attractive attire, are inspected and scrutinized by purchasers, in much the same manner as horses are in the cattle-markets of this country. The market of Kano is under the superintendence of a sheik, who regulates the police, and is said also to possess the exorbitant power of fixing the prices. The medium

of exchange consists of the small shells called cowries, four hundred and eighty of which make a shilling, so that paying a large sum is here rather a tedious process. Kano is celebrated all over Central Africa for the dyeing of cloth, for which process there are numerous establishments. Some ingenuity is displayed in the manufacture of leathern jars, which are fashioned upon a clay mould out of the raw hide. The inhabitants are also acquainted with the art of tanning. The negroes here are very polite and ceremonious, especially to those advanced in years. A part of the city is appropriated to the use of those who are afflicted with blindness, which is a prevalent disease.

Adjoining the province of Kano on the west there is a portion of territory called Katagum, which is said by Captain Clapperton to be a distinct province. According to that traveller, it is able to send into the field 4000 horse and 20,000 foot, armed with bows, swords, and spears. The city is built in the form of a square, the sides facing the cardinal points of the compass, with four corresponding gates, which are regularly opened and shut like those of Kano. It is defended by two walls, which have ditches on each side, and one between them. The governor and principal inhabitants have houses made entirely of clay. They are flat roofed, and sometimes consist of two stories, with square or semicircular openings for windows. The city may contain from 7000 to 8000 inhabitants. There are other towns comprised within the boundaries of this province, but none requiring particular description. Many parts of Katagum are highly cultivated, and laid out in plantations of cotton, tobacco, and indigo, which are separated from one another by rows of date-trees, and shaded by large umbrageous trees.

The next considerable town is Soccato, situated nearly at the western extremity of Houssa. The country which lies between Kano and Soccato is remarkably fine, and under high cultivation. It is diversified with forests of noble trees, and various rivers and streams, and traversed by picturesque ridges of granite, amongst which villages are romantically situated.

Soccato stands in latitude $13^{\circ} 4' 52''$ north, and longitude $6^{\circ} 12' E$. "It occupies," says Captain Clapperton, "a long ridge which slopes gently towards the north, and appeared to me the most populous town I had visited in the interior of Africa; for, unlike most other towns in Houssa, where the houses are thinly scattered, it is laid out in regular well-built streets. The houses approach close to the walls, which were built by the present sultan in 1818, after the death of his father; the old walls being too confined for the increasing population. This wall is between twenty and thirty feet high, and has twelve gates, which are regularly closed at sunset. There are two large mosques, including the new one at present building by the Gadado, besides several other places for prayer. There is a spacious market-place in the centre of the city, and another large square in front of the sultan's residence. The dwellings of the principal people are surrounded with high walls, which enclose numerous coozes and flat-roofed houses, built in the Moorish style, whose large water-spouts of baked clay, projecting from the eaves, resemble at first sight a tier of guns. The inhabitants are principally Fellatahs, possessing numerous slaves. Such of the latter as are not employed in domestic duties reside in houses by themselves, where they follow various trades; the master, of course, reaping the profit. Their usual employments are weaving, house-building, shoe-making, and iron work: many bring fire-wood to the market for sale. Those employed in raising grain and tending cattle, of which the Fellatahs have immense herds, reside in villages without the city. It is customary for private individuals to free a number of slaves every year, according to their means, during the great feast after the Ra-

Houssa. madan. The enfranchised seidom return to their native country, but continue to reside near their old masters, still acknowledging them as their superiors, and presenting them yearly with a portion of their earnings. The trade of Soccato is at present inconsiderable, owing to the disturbed state of the surrounding country. The necessities of life are very cheap; butcher-meat is in great plenty, and very good. The exports are principally civet, and blue check tobes called *sharie*, which are manufactured by the slaves from Nyffee, of whom the men are considered as the most expert weavers in Soudan, and the women as the best spinners. The common imports are brought from the borders of Ashantee; and coarse calico and woollen cloth, in small quantities, with brass and pewter dishes, and some few spices, from Nyffee. The Arabs, from Tripoli and Ghadamis, bring unwrought silk, ottar of roses, spices, and beads. Slaves are both exported and imported. A great quantity of Guinea corn is taken every year by the Tuaricks, in exchange for salt. The market is extremely well supplied, and is held daily from sunrise to sunset. On the north side of Soccato there is a low marsh, with some stagnant pools of water, between the city and the river: this, perhaps, may be the cause of the great prevalence of ague, as the city stands in a fine airy situation."

Subsequently to the writing of the above description, nearly two thirds of the city were destroyed by a conflagration; but when Clapperton visited it a second time, it had been rebuilt, in a manner so closely resembling what it had formerly been, that little alteration could be perceived. The palace, or house of the sultan, forms a sort of enclosed town, with an open quadrangle in front. A painted and ornamented cottage constitutes the hall of audience. Soccato is likely to decline, on account of the residence of the court having of late been transferred to Magaria.

The countries of Ghoover and Zamfra or Zanfara are inhabited by a rude and warlike race, who have sometimes assumed authority over Houssa, and are at present, or were lately, in open rebellion against Soccato. The people are a species of outlaws or robbers, and the high road between Kano and Soccato passing through their territory, merchants can only travel between the two cities in numerous armed bodies. Coonia, the capital of Ghoover, is strongly fortified, and in 1829 repulsed the whole military force of Houssa, consisting of 50,000 or 60,000 men. Zirmie, the capital of Zamfra, occupies a peninsula formed by the river Quarrama, which has here very high and steep banks covered with mimosas and prickly bushes, through which a narrow path winds to the gates. It is surrounded with a clay wall and a dry ditch. The governor of this stronghold bears the character of a freebooter, and the inhabitants, whom Clapperton represents as having a reckless independent look, are esteemed the greatest rogues in all Houssa. Runaway slaves from all quarters make Zirmie an asylum, where they are always well received.

To the north of Kano lies the considerable province of Kashna or Kassina, which at one period held supreme sway over all Houssa, and which has recently shaken off the yoke of Soccato. Kashna, the capital, is situated in lat. 12. 59. N. on a ridge of sienite, one of a number of ridges of this rock which run from north-north-east to south-south-west. The walls are of clay, and very extensive; but, as in the case of Kano, the houses do not occupy above one tenth of the ground enclosed, the rest being laid out in fields, and covered with wood. The houses are mostly in ruins, the principal commerce of the country having been transferred to Kano since the Fellatah power became predominant. Notwithstanding its abject state, it has nevertheless a considerable trade, which is carried on with the Tuaricks, or with caravans coming across the de-

sert by the route of Ghadamis and Tuat. The manufactures of Kashna are chiefly of leather, such as water-skins, red or yellow cushions, bridles of goat-skin, and hides. There is likewise some trade in fruits, such as figs, melons, pomegranates, and limes.

To the south of Soccato and Kano lies the country of Zegzeg, one of the finest in all Africa, and the most extensive province in Houssa. It is bounded on the east by Kano, on the south-east by Yacoba, on the south by a mountainous tract inhabited by Pagans, on the south-west by Nyffee, and on the north and west by Guari and Kashna. Travellers represent Zegzeg as resembling in appearance the finest parts of England, being beautifully variegated with hill and dale, over which are spread rich pastures and extensive fields, yielding plentiful crops, particularly of rice. Zaria, the capital, is situated in lat. 10. 59. N. and long. 8. 42. E. It occupies a great extent of ground, the houses being detached, or rather clustered together in small villages, which are separated from each other by corn fields, and even woods. The whole is surrounded with high clay walls, and the population has been estimated at about 50,000. To the south of Zegzeg, the country, though diversified by rising grounds, is fertile and well cultivated, and contains a number of considerable towns. Lander describes Cuttup as consisting of "nearly five hundred villages almost joining each other, occupying a vast and beautiful plain, adorned with the finest trees. Among these, the plantain, the palm, and the cocoa-nut tree were seen flourishing in great abundance, and the aspect of the country strikingly resembled some parts of Yariba. A considerable traffic is carried on here in slaves and bullocks, which are alike exposed in the daily market. The bullocks are bred by the Fellatahs, who reside here for no other purpose. Among the other articles brought here for sale, are red cloth, gum, salt, goora-nuts, trona, beads, tobacco, native cloth, rings, needles, cutlery, honey, rice, and milk; people from the most distant parts resorting hither in vast numbers." To the south of this place stretch a range of hills, which, Lander was told, were inhabited by a ferocious race of *yamyams* or cannibals, who a short time previously had killed and eaten a whole caravan-full of people. In a country fertile, but rocky, is situated Dunrora, a town containing about 4000 inhabitants. Not far from this place is a large town called Jacoba, which was described to Lander as standing on the river Shary; whilst farther to the east, on the same stream, there was said to be situated another large city called Adamowa; and here our knowledge of this portion of Africa becomes scanty and imperfect.

In the western tracts of Houssa there are few towns of any importance: these were visited, and have been described, by Captain Clapperton. After leaving Boogawa, a small town in the province of Katagum, and passing first through a thickly-wooded tract, and then over an open, well-cultivated country, this traveller reached Katungwa, a walled town. A range of low rocky hills was seen stretching nearly south-west, called *Doooshee* (the rocks), from which a large town takes its name. These were the first rocks that had occurred after leaving the southern borders of the Great Desert, the whole country thus far being soft alluvial clay. Near the extremity of the Doooshee hills is situated Zangeia, within the walls of which town there is a ridge of loose blocks of stone connected with the range. These masses of rock are about 200 feet in height, and give a romantic appearance to the neat huts clustering round the base, and to the fine plantations of cotton, tobacco, and indigo, and the rows of date and other trees. From the extensive walls which remain, Zangeia must have once been a very large town. Now, however, it consists merely of a collection of thinly-scattered hamlets. The country between this place and Kano is highly cultivated, and beautifully diversified by hill and

Hoveden. dale. Captain Clapperton passed several walled towns, the principal of which was Girkwa. As in the other towns already described, the houses here are in groups, with large intervening vacancies. The disproportion in the size of the walls of towns and the number of houses, to the amount of inhabitants, which is exhibited in many parts of Houssa, is to be accounted for by the usurpation of the country by the Fellatahs, who generally massacred the former occupants, or carried them away captives. To complete our description of Houssa, it will be necessary to give an account of this singular people, who are gradually extending their authority over Central Africa.

By the most correct accounts, it would appear that the Fellatahs are an off-shoot from the Foolahs of Western Africa, and may be identified with them. They are a mixture of Moors, Arabs, Berbers, and probably other races of men. They are much superior to the native negroes, with whom they very rarely mix their blood. Captain Lyon, speaking of the Fellatahs, observes, "their complexion being of a much lighter hue than that of the other tribes, they call themselves white; their colour resembles that of our gypsies in England. Many female slaves are brought to Mourzouk from their nation, and are very handsome women." Other observers describe their complexion as being very dark, and of a shade intermediate between that of the deepest African and the Moors. The fact seems to be, that their colour varies in a very remarkable manner, from being nearly white to nearly black. Both men and women pay considerable attention to their dress, which amongst the wealthy inhabitants is rather showy. In their domestic habits they are regular, orderly, and cleanly, and the slaves are generally well treated. The Mahomedan is the predominant religion, and considerable attention is paid to keeping up an appearance of it. Prayers are regularly said five times a day in the Arabic language, which both the male and female children of the better sort of Fellatahs are taught to read and write. Their marriages are celebrated without any pomp or noise, and such contracts are of a less arbitrary nature than we find them to be amongst the inferior races of mankind. Captain Clapperton makes the following remarks regarding Houssa:—"The government of the Fellatahs in Soudan is in its infancy. The governors of the different provinces are appointed during pleasure; and all their property, on their death or removal, falls to the sultan. The appointment to a vacancy is sold to the highest bidder, who is generally a near relation, provided that his property is sufficient to enable him to bid up to the mark. All the inferior offices in the towns are sold in like manner by the governors, who also succeed to the property of those petty officers at their death or removal. In the province of Kano they have no regular system of taxation. A great deal of marketable property is claimed by the governor, such as two thirds of the produce of all the date-trees and other fruit-trees, the proprietor being allowed only the remaining third. A small duty is also levied on every article sold in the market; or, in lieu thereof, a certain rent is paid for the stall or shed. A duty is also fixed on every *tobe* that is dyed blue, and sold. On grain there is no duty. Kano produces the greatest revenue that the sultan receives; it is paid monthly, in horses, cloth, and cowries. Adamowa pays yearly in slaves; Yacoba in slaves and lead ore; Zegzeg in slaves and cowries; Zamfra the same; Hadiga, and Katagum, and Zanonima in horses, bullocks, and slaves; Kashna in slaves, cowries, and cloth; Ader, or Tadel, in bullocks, sheep, camels, and a coarse kind of cotton cloth, like what is called by us a counterpane." Of the number of negroes and Fellatahs who inhabit the country of Houssa no correct idea can be formed. (R. R. R.)

HOVEDEN, ROGER DE, descended of an illustrious family, was born in Yorkshire, most probably at the town

of that name, some time in the reign of Henry I. After he had received the rudiments of education in his native country, he studied the civil and canon law, which were fashionable and lucrative branches of learning. He became domestic chaplain to Henry II. who employed him to transact several ecclesiastical affairs, in the conduct of which he acquitted himself with honour. He was by profession a lawyer, but, like other lawyers of the time, belonged to the church, and also officiated as professor of theology at Oxford. After the death of Henry, he applied himself to history, and composed annals, which commence at the year 731, where Bede's ecclesiastical history terminates, and extend to the third year of King John, or 1202. These annals were first published by Saville, amongst the *Historici Anglici*, 1595, and were reprinted at Frankfort, 1601, in two books, folio. The style of Hoveden is barbarous, like the age to which it belongs; but in diligence, knowledge of antiquity, and that fidelity which is the first quality of an historian, he not only surpassed the rude historians of the preceding ages, but left an example which many of his successors, in more enlightened times, failed to imitate. According to Vossius, Hoveden also wrote a history of the Northumbrian kings, and a life of Thomas à Becket. Edward III. when endeavouring to ascertain his title to the crown of Scotland, caused a diligent search to be made for the works of Hoveden; a circumstance which shows the estimation in which they were held, not only by the monarch himself, but by the age in which he flourished. (A.)

HOWARD, HENRY, Earl of Surrey, a highly-accomplished nobleman, the son and grandson of two Dukes of Norfolk, was born about the year 1520, and educated in Windsor Castle, with Henry Fitzroy, earl of Richmond, natural son of King Henry VIII. Wood states from tradition that he was for a time a student at Cardinal College, Oxford. In 1532, Howard, with his companion Richmond, was at Paris, where he remained a number of months. The latter died in 1536, after which Howard travelled into Germany, where he visited the emperor's court, and thence proceeded to Florence, where he fell in love with the fair Geraldine, whom his sonnets have immortalized, and, like a true *innamorato*, published a challenge to all comers, whether Christians, Jews, Saracens, Turks, or cannibals, in defence of the beauty of his mistress, and proved victorious in the tournament instituted by the grand duke on the occasion. The duke, it seems, was so delighted with his gallant exploits, that he would gladly have retained him at his court; but he rejected the invitation, being determined to maintain the superlative beauty of his Geraldine in all the principal cities in Italy. This romantic resolution was however frustrated by the command of his sovereign, Henry VIII. recalling him to England.

In 1540 he signalized himself in a tournament at Westminster, against Sir John Dudley, Sir Thomas Seymour, and others. In 1542 he marched under the command of his father against the Scotch; and in the same year he was confined in Windsor Castle for eating flesh in Lent, contrary to the king's proclamation. In the expedition to Boulogne in France, he was in 1544 appointed field-marshal of the English army; and after the taking of that town in 1546, made king's lieutenant and captain-general of the forces in France. He was at this time knight of the Garter. In the same year, having attempted to intercept a convoy, he was defeated by the French, and soon afterwards superseded in his command by the Earl of Hertford.

After his return to England, Surrey, conscious of his former services, and peevish under his disgrace, could not help reflecting on the king and council. This proved the first step towards his destruction. He had married Frances, the daughter of John earl of Oxford; and after her death

Howard. he is said to have made love to the Princess Mary. For this the Seymours, rivals of the Norfolk family, and now in favour with the king, accused him of aspiring to the crown, adding, that he had already presumed to quarter part of the royal arms with his own; but, whatever might be the pretence, the real cause of his ruin was the jealousy and power of his enemies. In short, the destruction of the Howards being determined on, Surrey, and his father the Duke of Norfolk, were committed to the Tower, on the 12th of December 1546; and on the 13th of January following, Surrey was tried at Guildhall by a common jury, and beheaded on Tower-Hill on the 19th day of the same month, nine days before the death of the king, who thus, to fill up the measure of his crimes, finished his life with the murder of his best subject. The accusations brought against this young nobleman on his trial were so exceedingly ridiculous, that one is astonished how it was possible, even in that despotic reign, to find a judge and jury so unprincipled as to carry on the farce of a trial and conviction.

As to the character of this unfortunate nobleman, all our poets have celebrated his praise. Mr Walpole commences his anecdotes of Surrey by observing: "We now emerge from the twilight of learning to an almost classic author, that ornament of a boisterous yet not unpolished court, the Earl of Surrey, celebrated by Drayton, Dryden, Fenton, Pope, illustrated by his own muse, and lamented for his unhappy death; a man, as Sir Walter Raleigh says, no less valiant than learned, and of excellent hopes." Leland calls him the conscript enrolled heir of Sir Thomas Wyatt the elder, in his learning and other excellent qualities; and the author of *The Art of English Poetry* says, that the Earl of Surrey and Sir Thomas Wyatt may justly be called the reformers of our poetry and style. His poems were published in 1557, 12mo; and in 1565, 1574, 1585, 1587, 8vo. Several of the sonnets ascribed to him are by Sir Thomas Wyatt and others. He also translated two books of the *Æneid*, which he executed with fidelity without prosaic servility, and which form the earliest specimen of blank verse in the English language. The diction is often poetical, and the versification varied by suitable pauses. It is probable that he intended to translate the whole; and this is so much more correct and elegant than his other translations, that it appears to have been the production of his happier days.

Howard, Charles, an able statesman and experienced seaman, was the son of Lord William Howard, baron of Effingham, and born in 1536. He served under his father, who was lord high admiral of England, till the accession of Queen Elizabeth. In January 1573 he succeeded his father in his title and estate; after which he became successively chamberlain of the household and knight of the Garter, and in 1585 was made lord high admiral, at the critical juncture when the Spaniards were sending an Armada, as they supposed, to the assured conquest of this kingdom. When he received intelligence of the approach of the Spanish fleet, and saw of how great consequence it was to get out the few ships which were ready at Plymouth, he not only gave orders in every thing himself, but even wrought with his own hands, and the first night left the port with six ships. The next morning, though he had only thirty sail, and these the smallest of the fleet, he attacked the Spanish fleet; but first despatched his brother-in-law, Sir Edward Hobby, to the queen, to desire her majesty to make a proper disposition of the land forces for the security of the coast, and to hasten as many ships as possible to his assistance. His valour was conspicuously displayed in repeated attacks of a superior enemy. The coolness of his temper was not less remarkable; and it was owing to his energy and prudence that the victory remained with the English. The queen expressed her sense of his merit in the most honourable terms, and granted him a

pension for life. In 1596 he commanded in chief the naval, as Essex did the land, forces sent against Spain, when, in the attack on Cadiz, his prudence and moderation were amongst the principal causes of the success which the English met with in that great and glorious enterprise; and, upon his return the following year, he was advanced to the dignity of Earl of Nottingham. The next eminent service in which his lordship was engaged was in 1599, when the Spaniards seemed to meditate a new invasion. Her majesty, who always placed her safety in being too quick for her enemies, drew together, in a fortnight, a fleet and an army, which rendered hopeless the success of her foreign and domestic enemies; and she gave the earl the supreme command of both, with the title of lord-lieutenant-general of all England, an office unknown in succeeding times. When age and infirmity had unfitted him for action, he resigned his office, and spent the remainder of his life in ease and retirement till the period of his decease, which happened in 1624, in the eighty-seventh year of his age.

Howard, John, a man of singular and transcendent humanity, was the son of a reputable tradesman in St Paul's Churchyard, and was born at Hackney in the year 1726. At a proper age he was put as apprentice to Mr Nathaniel Newnham, a wholesale grocer in Watling Street. But not long after this, his father died, leaving only this son and a daughter, to both of whom he bequeathed handsome fortunes; and by his will he directed that his son should not be considered as of age till he had reached five-and-twenty. His constitution was weak, and his health appeared to have been injured by the necessary duties of his apprenticeship; and therefore, at its expiration, he took an apartment in a lodging-house in Church Street, Stoke Newington, Middlesex; but not meeting with the tenderest treatment, he removed to another lodging-house in the same street, which was kept by a widow lady, Mrs Sarah Lardeau, a worthy sensible woman, but an invalid. Here he was nursed with so much care and attention, that out of gratitude for her kindness, he resolved to marry his landlady. In vain did the latter expostulate with him upon the extravagance of such a proceeding, considering the disparity of their ages; but nothing could alter his resolution, and they were privately married about the year 1752. This lady was possessed of a small fortune, which he presented to her sister. During his residence at Newington, the minister of the dissenting meeting-house in that place resigned his office, when a successor was appointed; and Mr Howard, who was bred a dissenter, and all his life stedfastly adhered to that profession, proposed to purchase the lease of a house near the meeting-house, and to appropriate it as a parsonage-house for the use of the minister for the time being, for which purpose he contributed £50. His wife died on the 10th of November 1755, aged fifty-four; and he was a sincere and affectionate mourner for her death. About this time, it is believed, he was elected a fellow of the Royal Society. In the year 1756 he had the misfortune to experience some of the evils which it afterwards became the business of his life to alleviate. Having embarked that year in a Lisbon packet, the *Hanover*, in order to make the tour of Portugal, the vessel was taken by a French privateer; and the hardships he suffered during his subsequent confinement in France are naturally supposed to have awakened his sympathies in favour of prisoners, and to have suggested to him the humane enterprise of endeavouring to render prisons less pernicious to health and morality. "Before we reached Brest," says he (*On Prisons*, 4to, 1784, p. 11), "I suffered the extremity of thirst, not having for above forty hours one drop of water, nor hardly a morsel of food. In the castle at Brest I lay six nights upon straw; and observing how cruelly my countrymen were used there and at Morlaix, whither I was carried next, during the two months I was at Carhaix upon parole, I corresponded with the English prisoners at Brest, Mor-

Howard. laix, and Dinnan; at the last of those towns were several of our ship's crew, and my servant. I had sufficient evidence of their being treated with such barbarity, that many hundreds had perished, and that thirty-six were buried in a hole at Dinnan in one day. When I came to England, still on parole, I made known to the commissioners of sick and wounded seamen the sundry particulars, which gained their attention and thanks. Remonstrance was made to the French court; our sailors had redress; and those that were in the three prisons mentioned above were brought home in the first cartel ships. Perhaps," adds Mr Howard, "what I suffered on this occasion increased my sympathy with the unhappy people whose case is the subject of this book."

He afterwards, it is said, made the tour of Italy; and at his return settled at Brokenhurst, a retired and pleasant villa in the New Forest, near Lymington, in Hampshire, having, on the 25th of April 1758, married a daughter of Edward Leeds of Croxton, Cambridgeshire, king's serjeant. This lady died in 1765, in giving birth to her only child, a son, who unfortunately became lunatic. After her death Mr Howard left Lymington, and purchased an estate at Cardington, near Bedford.

But the sphere in which he had hitherto moved was too narrow for his enlarged mind. Being named in 1773 to the office of sheriff of Bedfordshire, from that time his sphere of usefulness was extended. His office, as he himself observes, brought the distress of prisoners more immediately under his notice. A sense of duty induced him personally to visit the county jail, where he observed such abuses and scenes of calamity as he had before no conception of; and he soon exerted himself in order to reform them. With a view to obtain precedents for certain regulations which he proposed, he went to inspect the prisons in some neighbouring counties. But finding in them equal room for complaint and commiseration, he determined to visit the principal prisons in England. The farther he proceeded, however, the more shocking were the scenes presented to his view; and this induced him to resolve upon exerting himself to the utmost, in order to effect a general reform in these horrid places of confinement, considering it as of the highest importance, not only to the wretched objects themselves, but to the community at large. Upon this subject he was examined by the House of Commons in March 1774, when he had the honour of receiving their thanks. This encouraged him to proceed in his design. He revisited all the prisons in the kingdom, together with the principal houses of correction. He also in 1775 enlarged his circuit by going into Wales, Scotland, and Ireland, where he found the same want of reformation.

One grand object which he had in view was, to put a stop to that shocking distemper called the jail fever, which raged so dreadfully in many of the prisons as to render them to the last degree offensive and dangerous; a distemper by which more had been taken off than by the hands of the executioner, and which, in several instances, had been communicated from the prisons into the courts of justice, and proved fatal to the magistrates and judges, and to multitudes of persons who attended the trials, as well as to the families of discharged felons and debtors. Another end he proposed was, to procure the immediate release of prisoners, who, upon trial, were acquitted, but who often continued to be unjustly detained from not being able to pay the accustomed fees; and also to abolish many other absurd and cruel usages which had long prevailed. But the great object of all was, to introduce a thorough reform of morals into our prisons, where he had found the most flagrant vices prevailing to such a degree, that they were become seminaries of wickedness and villany, and the most formidable nuisances to the commu-

nity, in consequence of the promiscuous intercourse of prisoners of both sexes, and of all ages and descriptions, by which the young and less experienced were initiated, by old and hardened sinners, into all the arts of villany and the mysteries of iniquity; so that, instead of being reformed by their confinement, which should be the chief end of punishment, those who were discharged became more dangerous to society than before.

These laudable endeavours he had the satisfaction to see, in some instances, crowned with success; particularly in regard to the healthiness of prisons, some of which were rebuilt under his inspection. Through his interposition, also, better provision was made for the instruction of prisoners, by the introduction of bibles and other pious books into their cells, and a more constant attendance of clergymen. But in order to introduce a more general and humane regulation, and to conduce to the reformation of criminals, he determined to visit other countries, and examine the plans there adopted, in the hope of collecting some information which might be useful in his own country. For this purpose he travelled into France, Flanders, Holland, Germany, and Switzerland, and afterwards through the Prussian and Austrian dominions. He also visited the capitals of Denmark, Sweden, Russia, and Poland, and some cities in Portugal and Spain. In all these expensive and hazardous journeys, he denied himself the usual gratifications of travellers, and declined the honours which were offered him by persons of the first distinction, applying himself solely to one grand object. To him indeed the inspection of a jail, or an hospital, was more grateful than all the entertainments of a palace. With what astonishment and gratitude he was received by their miserable inhabitants may easily be imagined, since, whilst he made observations on their situation, he meditated their relief; and many distressed prisoners abroad, as well as at home, partook of his bounty, and some were liberated by it; for he considered those of every nation, and people, and tongue, as brethren. On his return, he published, in 1777, the *State of the Prisons in England and Wales*, with *Preliminary Observations*, and an *Account of some Foreign Prisons*, 4to. In the year 1778 he undertook a third journey through the Prussian and Austrian dominions, and the free cities of Germany; and likewise extended his tour through Italy, and revisited some of the countries which he had before examined. The observations he made in this tour were published in an appendix, 1780, containing also some remarks respecting the management of prisoners of war, and the hulks on the Thames. But wishing to acquire some further knowledge on the subject, he, in 1781, revisited Holland and some cities in Germany. He also visited the capitals of Denmark, Sweden, Russia, and Poland, and in 1783 some cities in Portugal and Spain; and returned through France, Flanders, and Holland. The substance of all these travels was afterwards thrown into one narrative, which was published in the year 1784. He likewise published a curious account of the Bastille, in 8vo.

His travels and exertions, however, were not yet at an end. He conceived a further design, which was to visit the principal lazarettos in France and Italy, in order to procure information concerning the best methods of preventing the spread of the plague, with a view to apply them to other infectious disorders. But not obtaining all the satisfaction which he wished for in those countries, he proceeded to Smyrna and Constantinople, where that most dreadful of human distempers actually prevailed; "pleasing himself," as he said, "with the idea of not only learning, but of being able to communicate somewhat to the inhabitants of those distant regions." In the execution of this design, though he was so much exposed to danger, and actually caught the plague, "that merciful

Howard. Providence," as he himself piously remarks, "which had hitherto preserved him, was pleased to extend its protection to him in this journey also, and to bring him home once more in safety." On his way home he revisited the chief prisons and hospitals in the countries through which he passed; and afterwards went again to Scotland, and thence to Ireland, where he proposed a new and very important object, namely, to inspect the Protestant charter-schools, in some of which he had before observed shameful abuses, which he reported to a committee of the Irish House of Commons. In this more extensive tour, he took a particular account of what he had observed amiss in the conduct of this noble charity, with a view to a reformation, and not without considerable success. In the course of these journeys, particular cities and communities were not unmindful of paying him proper respect. At Dublin, he was created a doctor of laws by Trinity College; and the city of Glasgow and the town of Liverpool did honour to themselves by enrolling him amongst their members. Upon his return home, having again inspected the prisons in England, and the hulks on the Thames, in order to see what alterations for the better had been made, and which he found to be very considerable, though still imperfect, he published the result of his last laborious investigations, in an *Account of the Principal Lazarettos in Europe*, with various Papers relative to the Plague, together with further Observations on some Foreign Prisons and Hospitals, and additional Remarks on the present State of those in Great Britain and Ireland, with a great number of curious plates. The work likewise contained observations on penitentiary houses, which had been encouraged by act of parliament, for the correction and reformation of criminals, and of which he and Dr Fothergill had been nominated by the king superintendents. Besides these, he published the Grand Duke of Tuscany's new code of criminal law, with an English translation; of which, as indeed of all his publications, he gave away a great number of copies amongst his acquaintance. His laying open the horrors of despotism in a neighbouring country, however, had nearly exposed him to suffer them; and had it not been for the timely notice of our ambassador, he would probably have ended his days in the Bastille.

Not satisfied, however, with what he had already done, he concludes his *Account of Lazarettos* with announcing his intention again to quit his country, for the purpose of revisiting Russia, Turkey, and some other countries, and extending his tour in the East. "I am not insensible," says he, "of the dangers that must attend such a journey. Trusting, however, in the protection of that kind Providence which has hitherto preserved me, I calmly and cheerfully commit myself to the disposal of unerring wisdom. Should it please God to cut off my life in the prosecution of this design, let not my conduct be uncandidly imputed to rashness or enthusiasm, but to a serious, deliberate conviction that I am pursuing the path of duty, and to a sincere desire of being made an instrument of more extensive usefulness to my fellow-creatures than could be expected in the narrower circle of a retired life." Accordingly, to the great concern of his friends, he set out in summer 1789 on this hazardous enterprise; the principal object of which was to administer a medicine in high repute at home in malignant fevers (Dr James's powder), under a strong persuasion that it would prove equally efficacious in the plague. But in this second tour in the East, it pleased God to cut off his life; for, having spent some time at Cherson, a new settlement of the empress of Russia, at the mouth of the Dnieper or Borystheneas, towards the northern extremity of the Black Sea, near Oc-

zakow, he, in visiting the Russian hospital of that place, or, as some say, a young lady, caught a malignant fever, which carried him off on the 20th of January, after an illness of about twelve days; and having been kept five days, according to his express directions, he was buried, by his own desire, in the garden of a villa in the neighbourhood, belonging to a French gentleman, from whom he had received great civilities. While absent on his first tour in Turkey, his character for active benevolence had so much attracted the public attention, that a subscription was set on foot to erect a statue to his honour, and in a short time above L.1500 was subscribed for that purpose. But some of those who knew Mr Howard best never concurred in the scheme, being well assured that he would neither countenance nor accede to it; and in consequence of two letters to the subscribers, from Mr Howard himself, the design was laid aside. It was, however, resumed after his death; and surely, of all the statues or monuments raised by public gratitude to illustrious characters either in ancient or modern times, none was ever erected in honour of worth so genuine and admirable as that of Howard, who devoted his time, his strength, his fortune, and finally sacrificed his life, in the pursuits of humanity; and who, to adopt the expressive words of Mr Burke,¹ "visited all Europe [and the East], not to survey the sumptuousness of palaces or the stateliness of temples; not to make accurate measurements of the remains of ancient grandeur, nor to form a scale of the curiosity of modern art; not to collect medals, or to collate manuscripts; but to dive into the depth of dungeons; to plunge into the infection of hospitals; to survey the mansions of sorrow and of pain; to take the gauge and dimensions of misery, depression, and contempt; to remember the forgotten; to attend to the neglected; to visit the forsaken; and to compare and collocate the distresses of all men in all countries. His plan is original, and it is as full of genius as it is of humanity. It is a voyage of discovery, a circumnavigation of charity; and already the benefit of his labour is felt more or less in every country."

HOWDEN, a market-town of the east riding of the county of York, 184 miles from London. It stands in a level and somewhat marshy district, about one mile from the river Ouse, over which there is a ferry. It is very ancient, and was formerly the seat of the Bishop of Durham. There is a market on Saturday, to which much corn is brought; and one of the largest fairs for horses is held in July. The population amounted in 1801 to 1552, in 1811 to 1812, in 1821 to 2080, and in 1831 to 2130.

HOWE, RICHARD, EARL, an English naval commander of distinguished eminence, was born in the year 1725, being the second son of Lord Viscount Howe, by the daughter of Baron Kilmansegg. From his early attachment to the life of a mariner, he quitted the school of Eton at the age of fourteen, and went on board the *Severn*, commanded by the Honourable Captain Legge, and destined for the South Seas under Commodore Anson. Mr Howe next appeared in the *Burford*, Captain Lushington commander, who being killed in an expedition against the Caraccas, Commodore Knowles made Mr Howe an acting lieutenant. At the age of twenty he was promoted to the rank of commander in the *Baltimore* sloop of war, and joined a squadron at that time cruising off the coast of Scotland, where he met with an opportunity of displaying his undaunted courage and intrepidity, by engaging and beating off two French frigates of thirty guns each, with the assistance of another armed ship, notwithstanding that he was severely wounded in the head during the action. This service was immediately and justly rewarded with

Howden
||
Howe.

¹ Speech at Guildhall in Bristol, 1780.

Howe. the rank of post-captain. He was soon afterwards appointed to the rank of captain on board Commodore Knowles's own ship of eighty guns, with which he returned to England in the year 1748. When hostilities again commenced, he commanded the *Dunkirk* of sixty guns, in North America; a ship which constituted part of the squadron under Admiral Boscawen, and with which he captured a French man of war of superior metal, off the coast of Newfoundland, namely, the *Alcide* of sixty-four guns. In order to annoy the coast of France, he received in the year 1758 the command of a small squadron, with which he effected the destruction, at St Malo, of a number of magazines and ships. When he served on board the *Essex*, Prince Edward, afterwards Duke of York, sailed with him, at which time he powerfully contributed to the reduction of the town of Cherbourg. In 1758 his elder brother fell in North America, in the service of his king and country; upon which occasion the young commodore succeeded to the family title and estate. In the following year he had a share in the victory gained by Sir Edward Hawke over the French fleet under Admiral Conflans. He afterwards served in the Channel, and was captain of the *Amelia*, the ship of admiral the Duke of York. On the restoration of peace, he was nominated one of the lords of the admiralty, and some time afterwards treasurer of the navy. He was in the year 1770 raised to the rank of rear-admiral of the blue, and chosen commander-in-chief on the Mediterranean station. In 1775 he was promoted to the rank of rear-admiral of the white. In reference to his rapid promotion, Lord Hawke said in the House of Peers, "I advised his majesty to make the promotion. I have tried my Lord Howe on important occasions; he never asked me how he was to execute any service, but always went and performed it."

In the summer of 1776, Lord Howe appeared off Massachusetts, as commander-in-chief of his Britannic majesty's fleet acting in North America, and in the capacity of commissioner for restoring the blessings of an amicable reconciliation. All the provincial governors were made acquainted with his arrival by means of circular letters expressive of the full extent of the authority with which he and his fellow commissioners were invested; but as congress did not deem the conditions which these letters contained to be at all satisfactory, they were ordered to be inserted in all the gazettes for the examination of the people. His powers being thus circumscribed at the very commencement, he could only act in the capacity of naval commander, in which he aided the operations of the land forces with uncommon skill. It was not to be imagined, however, that much glory could redound to his lordship from such an unequal contest, till the junction of France with America placed the contending parties more upon a level. On the arrival of Admiral d'Estaing, in the month of July 1778, off Sandy Hook, Lord Howe was certainly in a very critical situation; but, in consequence of an effort of uncommon skill and dexterity, the French commander deemed it prudent to retire, when he was pursued by Lord Howe to Rhode Island, after obtaining a reinforcement under Admiral Byron. The intentions of the enemy were completely counteracted, and the campaign was finally terminated with honour. Here he resigned his command, and returned to England; but in 1782 he was promoted to the rank of admiral of the blue, made a viscount of Great Britain, and chosen commander of the fleet which was sent for the relief of Gibraltar. The combined fleets of France and Spain were about a third superior to that under Lord Howe, who, with thirty-four sail of the line, appeared off Gibraltar in the month of October, being driven into the Mediterranean by contrary winds. Although he was pursued by the combined fleet, he found means to supply the fortress with provisions. He checked the enemy by a partial action, and

notwithstanding he offered to give them battle, it was declined on their part; and he had the satisfaction to execute his commission prior to his return home, in spite of the numerous difficulties which he had to encounter.

On the termination of the war he was nominated first lord of the admiralty, which he both resigned and resumed with the different changes of administration. In the year 1787 he was appointed admiral of the white, and in the following year created an earl of Great Britain. When hostilities were renewed with France in 1793, his lordship, at the express desire of his majesty, accepted the command of the Channel fleet; but he had it not in his power to effect any thing decisive till the summer of 1794. On the memorable first of June, with a fleet consisting of twenty-five sail of the line, he gave battle to a French fleet of twenty-six, and gained a most signal victory over the enemy, capturing seven of their ships, one of which was so shattered as to go to the bottom, whilst several others were very much crippled. His lordship had the good fortune not to lose a ship, and comparatively but few men, considering the great loss sustained by the enemy. The gratitude of the nation was suitable to the importance of this naval victory, and it is more than probable that the first of June will never be forgotten. In 1795 he was made general of marines; but the infirmities which are the usual concomitants of age induced him to resign his naval command in the year 1797, and on his final retreat he was presented with the badge of the Garter. His influence as an officer contributed greatly to stifle a spirit of mutiny and discontent which at this time exhibited alarming symptoms amongst the seamen of his majesty's fleets. He terminated his brilliant and honourable career on the 5th of August 1799, in the seventy-third year of his age, leaving none but female issue behind him. His lordship's valour, always cool and steady, was of that nature which enables a commander to make the most of his situation; his judgment was sound and penetrating, which prevented him from being easily imposed upon by external appearances; and his seamanship was of the most consummate and masterly kind.

Howe's Island, in the South Pacific Ocean, discovered by Captain Wallis in 1767. It is about sixty miles long and four broad, and was found by Captain Cook in 1774 to consist of several smaller islands almost joined together by reefs, and to have no inhabitants. Long. 154. 7. W. Lat. 16. 46. S.

HOWITZ, a kind of mortar, mounted upon a field carriage, like a gun. See GUNNERY.

HOWTH, a promontory which forms the northern entrance of the Bay of Dublin, having a small village about seven miles north-east from that city, in the province of Leinster. It gives the title of earl to the family of St Lawrence, who were so called from a victory obtained by them over the Irish on St Lawrence's day 1177, their former name being Tristram; and this place has continued in possession of the family above six centuries. Long. 6. 22. W. Lat. 53. 21. N.

HOY, a small vessel chiefly used in coasting, or carrying goods to or from a ship, in a road or bay, where the ordinary lighters cannot be managed with safety or convenience.

Hoy, one of the Orkney Islands, off the north coast of Scotland, is situated between the island of Pomona and the north coast of Caithness, and is separated from the small island of Grimsay by a sound about a mile in breadth. See ORKNEY ISLANDS.

HOXTER, a city of Prussia, the capital of a circle of the same name, in the Minden division of the province of Westphalia. It is situated on the river Weser, and contains 460 houses, with 3411 inhabitants. The manufactures are linen, leather, and table-cloths. Long. 9. 18. 11. E. Lat. 51. 46. 42. N.

Howe's
Island
||
Hoxter.

Hoya
Hucknall-
Torkard.

HOYA, with **DIEPHOLZ**, a province of the kingdom of Hanover. It has been formed at different periods, a part having belonged to the house of Brunswick since the year 1583, another part which came to that house two years after, and a part consisting of three bailiwicks, which was ceded by the prince of Hesse-Cassel in 1815. It is bounded on the north-west by Oldenburg, on the north by Bremen and Brunswick, on the north-east by Bremen and Verden, on the east by Calenburg and Luneburg, on the south by Prussian Westphalia, on the south-west by Oldenburg, and on the west by Osnabruck. It extends over 1352 square miles, contains one city (Hoya), twenty-four market-towns, fifty-six parishes, and 497 villages and hamlets, and 14,666 dwellings. The number of inhabitants amounted in 1812 to 104,970, but they are estimated to have increased one fifth since that period. The Platt-Deutsche is the common language. The religion is exclusively Lutheran, or at least the Catholics and reformed are in no place so numerous as to hold any public exercise of their forms of worship. It is generally a sandy heath, but towards the river Weser there are some tolerably fertile pasture lands. It yields buck-wheat, rye, barley, and a very small portion of wheat, and produces flax, feathers, wax, and honey. The only manufactures are coarse linens and woollens, made in each peasant's house for his own family. The capital, Hoya, is situated on the Weser, and contains 220 houses and 1867 inhabitants, who carry on some trade by the river with Bremen. Long. 9. 5. 40. E. Lat. 52. 48. 47. N.

HUAHEINE, or **AHEINE**, signifying, in the native language of the South Sea Islands, *woman*, the easternmost of the group called the Society Islands by Captain Cook. It is twenty-four miles in circumference, and is divided into two peninsulas by an isthmus overflowed at high water. It has a very narrow stripe of fertile low land next the shore, and the hills are in some places highly cultivated. The productions are similar to those of Otaheite, but they are about a month earlier. The inhabitants are larger made and stouter, and the women are in general more handsome. This island has been visited by many navigators since the time of Captain Cook, but their information throws no new light on the productions of the island or the manners of the people. Long. 150. 58. W. Lat. 16. 43. S.

HUBELY, a town of Hindustan, in the province of Bejapoor. It is large and populous, defended by a mud rampart and ditch, and has for many years carried on an extensive trade, particularly with Goa, to which are sent sandal wood and elephants' teeth, and in return raw silk, cottons, woollens, and rice are received. There are also manufactures of raw silk and cotton, great quantities of which are sold for the dresses of the country people. It is a wealthy place, the residence of many rich bankers, who, by means of their agents, extend their commercial intercourse to Surat, Hyderabad, Seringapatam, and even to more distant places on which bills of exchange can be negotiated, and who regulate the standard of the currency in all the adjoining countries. The English East India Company formerly had a factory here, which was plundered by the Mahrattas in 1673, when the Company sustained a great loss. In 1685 it was taken by the Mogul troops of Aurungzebe, and soon after the death of that monarch in 1707 it was again taken by the Mahrattas, and still continues in their possession. Long. 75. 10. E. Lat. 15. 24. N.

HUBNER, JOHN, a learned geographer of Germany, who taught geography at Leipsic and Hamburg with extraordinary reputation; and died at Hamburg in 1732, aged sixty-three. His principal work is a *Geographical Treatise*, printed at Basil in 1746, in six vols. 12mo.

HUCKNALL-TORKARD, a town in the hundred of

Broxtow, in the county of Nottingham, 130 miles from London, where there are manufactures of hosiery. The inhabitants amounted in 1801 to 1497, in 1811 to 1793, in 1821 to 1940, and in 1831 to 2200.

HUDDERSFIELD, an extensive town and parish in the wapentake of Aybrig, of the west riding of Yorkshire, 187 miles from London. It stands on the river Colne, and is connected by canal navigation with the Calder at Wakefield, a distance of fourteen miles. It is a place of great industry, chiefly occupied in the manufacture of woollen goods of various kinds. A cloth market is held on Tuesday, which is very numerously attended by woolstaplers and merchants from Leeds, Halifax, and Wakefield, as well as by some from Manchester, with which it has also a canal communication. A new cloth hall was built in 1765, by Sir John Ramsden, the proprietor of the site of the town, and it is a very fine building. The inhabitants amounted in 1801 to 7268, in 1811 to 9671, in 1821 to 13,284, and in 1831 to 19,035. It has been created a borough by the law of 1832, returns one member to parliament, and has about 600 voters.

HUDSON, HENRY. Of this eminent navigator nothing is known prior to the year 1607, when he was employed by some London merchants in a small vessel, for exploring a north-east passage to China and Japan. He set sail on the 1st of May with only ten men and a boy, and reached as high as 80° of north latitude, where being stopped by the ice, he returned to England in the month of September following. In his next voyage he landed at Nova Zembla; but being unable to make any farther east, he returned in August the following year. The Dutch East India Company fitted him out in the year 1609, with a crew of twenty men, English and Dutch; and after attempting in vain to penetrate eastward, he steered for the American coast, and went as far as Chesapeake Bay. But his crew having mutinied, he durst not attempt a westerly passage through Davis's Strait, and therefore returned home. The knowledge acquired by him in these voyages increased his ardour for discovery, and he again made an offer of his services to the Dutch East India Company, which were not accepted; and for his last voyage, Sir Thomas Smith, Sir Dudley Digges, and some other of his friends, fitted him out. He set sail on the 17th of April, and came in sight of Greenland on the 4th of June. Sailing westward, he reached the mouth of the strait which bears his name, through which he advanced along the coast of Labrador, which he called *Nova Britannia*. Here he hoped to have discovered the long-wished-for passage; but he found he was only in a bay, in the southern part of which he determined to winter. After this he fitted out his shallop for further discoveries; but as he had no means of revictualling his ship, he distributed his last remaining bread, with tears in his eyes, amongst his people, and proposed to return home. But his mutinous crew entered his cabin by night, tied his hands behind his back, and set him ashore at the west end of the straits, with seven of the crew who were most attached to him. They were never more heard of, and it is probable that they were swallowed up by the waves.

HUDSON, William, a celebrated English botanist, was born at Westmoreland about 1730. He was bound apprentice to an apothecary in London, whose business he continued, and proved a friend to the widow and daughters of his master. It appears from the testimony of Dr Pulteney, that he had a residence in the British Museum, but we are not informed in what capacity. He died of a paralytic distemper in May 1793. He possessed a comprehensive knowledge of English plants, which induced him to undertake an arrangement of English botany according to the Linnæan classification; a task which had been previously attempted by Dr Hill, but the execution

Hudders-
field
Hudson.

Hudson's Bay || **Hudson's River.** of which was very imperfect. Hudson's *Flora Anglica* appeared in 1762, in one volume 8vo, the Latin preface to which was written by Mr Stillingfleet, received with great applause, and contributed greatly to the adoption of the sexual system in England.

HUDSON'S BAY, a large bay of North America, lying between 51 and 69 degrees of latitude, discovered in 1610 by Henry Hudson. This intrepid mariner, in searching after a north-west passage to the South Seas, discovered three straits, through which he hoped to discover a passage to Asia by America. He had made two voyages before on the same adventure; the first in 1607, and the second in 1608. In his third and last, 1610, he entered the straits leading into this new Mediterranean, the bay known by his name; coasted a great part of it, and penetrated to eighty degrees and a half into the heart of the frozen zone. His ardour for the discovery not being abated by the difficulties he struggled with in this domain of winter, he staid there until the ensuing spring, and prepared in the beginning of 1611 to pursue his discoveries; but his crew, who had suffered equal hardships, without the same spirit to support them, mutinied, seized upon Hudson and seven of those who were most faithful to him, and committed them to the fury of the arctic seas in an open boat. As already mentioned, Hudson and his companions were either swallowed up by the waves, or, gaining the inhospitable coast, were destroyed by the savages; but the ship and the rest of the men returned home. Other attempts towards a discovery were made in 1612 and 1667; and a patent for planting the country, with a charter for a company, was obtained in the year 1670. In 1746 Captain Ellis wintered as far north as fifty-seven degrees and a half; and Captain Christopher attempted further discoveries in 1761. The company being desirous of obtaining information regarding a river called the Coppermine River, directed Mr Hearne, a young gentleman in their service, to proceed over land for that river, which he had orders to survey if possible down to its embouchure; to make observations for fixing the latitudes and longitudes; and to bring home maps and drawings both of it and the countries through which he might pass. Accordingly Mr Hearne set out from Prince of Wales's Fort, on Churchill River, latitude $58^{\circ} 47\frac{1}{2}'$ north, and longitude $94^{\circ} 7\frac{1}{2}'$ west from Greenwich, on the 7th of December 1770. On the 13th of June he reached the Coppermine River, and found it all the way, even to its mouth, encumbered with shoals and falls, and emptying itself into the sea over a dry flat of the shore, the tide being then out, which seemed by the edges of the ice to rise about twelve or fourteen feet. Mr Hearne was nevertheless sure of the place where it emptied itself into being the sea, or a branch of it, by the quantity of whalebone and seal-skins which the Esquimaux had at their tents, and also by the number of seals which he saw upon the ice. It appears from the map which Mr Hearne constructed of this singular journey, that the mouth of the Coppermine River lies in latitude 72° north, and longitude 25° west from Churchill River; that is, about 119° west of Greenwich. Mr Hearne's journey back from the Coppermine River to Churchill lasted till the 30th of June 1772, so that he was absent about a year and seven months. The subsequent progress of discovery in this quarter has been detailed in the article on GREENLAND.

HUDSON'S BAY COMPANY. See COMPANY.

HUDSON'S RIVER, a large river of North America, which rises on the east of Lake Ontario, and running by Albany, and on the back of the south part of New England through part of New York, falls into the bay of the sea beyond the west end of Long Island, and below the town of New York.

HUE AND CRY, in *Law*, the pursuit of a person who has committed felony on the highway. Of this custom, which is of British origin, the following deduction is given by Mr Whitaker. "When it was requisite for the Britons to call out their warriors into the field, they used a method that was particularly marked by its expeditiousness and decisiveness, and remains partially among us to this moment. They raised a cry, which was immediately caught by others, and in an instant transmitted from mouth to mouth through all the region. And, as the notice passed along, the warriors snatched their arms, and hurried away to the rendezvous. We have a remarkable description of the fact in Cæsar, and there see the alarm propagated in sixteen or seventeen hours through a hundred and sixty miles in a line. And the same practice has been retained by the Highlanders almost till our own time. When the lord of a clan received intelligence of an enemy's approach, he immediately killed a goat with his own sword, dipped the end of a half-burnt stick in the blood, and then gave it and the notice of the rendezvous to be carried to the next hamlet. This was called the cross-tarric, or fiery cross. It symbolically threatened fire and sword to all his followers that did not instantly repair to the rendezvous. The notice was despatched from hamlet to hamlet with the utmost expedition, and in three or four hours the whole clan was in arms, and assembled at the place appointed. This was the ordinary mode by which the chieftains assembled their followers for war. The first person who received the notice set out with it at full speed, delivered it to the next he met, who instantly set out with the same speed, and handed it to a third. In the rebellion of 1745 it was sent by an unknown hand through the region of Breadalbane; and flying as expeditiously as the Gallic signal in Cæsar, traversed a tract of thirty-two miles in three hours. This quick method of giving a diffusive alarm is even preserved among ourselves to the present day; but is applied, as it seems from Cæsar's account above to have been equally applied among the Celtæ, to the better purposes of civil polity. The *hutesium* and clamour of our laws, and the *hue and cry* of our own times, is a well-known and powerful process for spreading the notice and continuing the pursuit of any fugitive felons. The cry, like the clamour of the Gauls or the summons of the Highlanders, is taken from town to town and from county to county; and a chain of communication is speedily carried from one end of the kingdom to the other."

HUESCA, a city of Spain, in the province of Aragon. It is built at the junction of the two rivers Alcanadre and Isuela, which fall into the Ebro. It is the see of a bishop, and has an episcopal palace, with a very sumptuous cathedral. Within this city is a magnificent university, consisting of two colleges, and both amply endowed. The country around it is highly fertile, and there are manufactories both of linen and woollen. It is a city of very ancient origin, and the walls built by the Romans are still visible around it. It contains 6800 inhabitants.

HUESCAR, a small city of Granada, in Spain. It is near the borders of Murcia, on the banks of the Almanzora. A canal, projected and commenced here formerly, has been suffered to languish, if not to fall into decay. It was designed to irrigate the lands in Lorca, Totana, and other dry parts of Murcia, and to afford water carriage for timber, hemp, flax, and other stores, from the Sierras de Huescar, to the royal arsenal of Carthagena. This city has a castle, and a population of 3000 inhabitants.

HUET, PETER DANIEL, bishop of Avranches, was born at Caen on the 8th of February 1630, and early distinguished for his love of letters and philosophy. His parents having died whilst he was yet an infant, Huet fell into the

Hue and
Cry
||
Huet.

Huet, hands of guardians who neglected him; but his invincible love of learning enabled him to surmount every disadvantage, and he finished his studies in the belles-lettres before he had completed his thirteenth year. He studied philosophy under Father Mambrun, a Jesuit, who, in imitation of Plato, directed him to commence by learning geometry; and Huet contracted such a relish for the mathematics, that he applied himself to almost every branch of the exact sciences, and maintained public theses thereon at Caen. But he was withdrawn from this pursuit by the *Principles* of Descartes on the one hand, and the *Sacred Geography* of Bochart on the other. Of Descartes, then in all his vogue, Huet was a warm admirer, and, for many years, adhered to his philosophy, which, however, he at length saw reason to abandon as visionary. But the work of Bochart, who, like himself, was a native of Caen, made a more lasting impression upon his mind, and inspired him with that taste for erudition by which he was afterwards so much distinguished. In 1652 Huet accompanied Bochart in a visit to Sweden, where he met with a most gracious reception from the queen, Christina. In undertaking this journey he had two objects in view; one was, to see Christina, who was then occupied in regulating and improving her states; and the other to become acquainted with the learned men by whom that princess was surrounded, and to examine the ancient manuscripts in her possession, particularly one of the works of Origen. He returned with literary treasures of more than one kind, which in due time he communicated to the public. Scarcely had he revisited his native city, when, in conjunction with some friends, he formed there an academy for the encouragement of learning, which, we believe, is still in existence. The reputation and merit of Huet, however, had not procured him any solid recompense, when, in 1670, he was united as sub-preceptor with Bossuet, who had just been appointed to superintend the education of the Dauphin. It was at this period that he took occasion to embark in a work which suited him perfectly, and in which he was engaged nearly twenty years. In conformity with a suggestion of the Duke of Montausier, he formed the plan of those editions of the Latin classics, *ad usum Delphini*, destined for the instruction of his illustrious pupil; and it was he who directed the execution of the undertaking. In 1674 he was received into the French Academy; and it may be remarked that, in his inaugural discourse, he complained that ancient learning was then held in little estimation, being almost banished from the commerce of the polite world, and buried in the dust and obscurity of a few cabinets. Fléchier, who was then director of the academy, spoke in reply, and dwelt upon the protracted and useful studies which had been the delight of the Abbé Huet in his early youth, and which formed the sole occupation, as well as passion, of his more mature years. His duties as sub-preceptor did not prevent him from satisfying his ardent taste for the most difficult languages, and the most ancient books. Leaving court in the evening, he occasionally passed entire nights in the libraries of Paris, whence he derived the information which he could not obtain from his own. In 1678 Louis XIV. granted him, as a recompense for his zeal and services, the abbey of Avenay, near Caen, where he composed the greater part of his works. In 1685 he was appointed to the bishopric of Soissons, of which, however, he did not take possession; he had not, in fact, received the bulls in 1689, when M. Brûlart de Sillery, nominated for the bishopric of Avranches, proposed to him an exchange. This latter see was much more acceptable to Huet, because it fixed him at no great distance from his native city and his abbey; but he was not consecrated until 1692, by reason of some differences which had arisen between the court of France and that of Rome. Huet did not neglect his episcopal duties; but when these were discharged, he indulged

his love of learning with so much ardour, and passed so much time in his library, that men of the world, and even ecclesiastics, who had business to transact with him, could scarcely obtain access to the studious prelate. An individual who had often been told, when he called, that the bishop could not be seen, because he was occupied among his books, withdrew one day, much dissatisfied; "why," said he, "has the king sent us a bishop who has not yet completed his studies." Huet, however, did not long retain his preferment. Sensible of growing infirmities, and finding that he could not reconcile his tastes with his duties, he resigned his bishopric, and received in exchange the abbey of Fontenay, situated at the gates of Caen. Some time afterwards he repaired to Paris; established himself in the Jesuits' College there, to which he presented his fine library; and, during twenty years, divided his time between prayer and study, for which he preserved his taste to the last. Zealous for the glory of that religion which, in more than one work, he had ably defended, he closed his long and honourable career on the 26th January 1721, at the advanced age of about ninety-one. The works of Huet, the greater part of which continue to be held in high estimation, are, 1. *De Interpretatione libri duo*, 1°. de optimo genere interpretandi, 2°. de claris interpretibus, Paris, 1661, in 4to; 2. *Origenis Commentaria in Sacram Scripturam*, Greek and Latin, Rouen, 1668, in two vols. folio; 3. *Lettre sur l'origine de Romans*, Paris, 1670; 4. *Demonstratio Evangelica*, Paris, 1679, in folio; 5. *Censura Philosophiæ Cartesianæ*, Paris, 1689 and 1694; 6. *Questiones Alnetanæ de Concordia Rationis et Fidei*, Caen, 1690; 7. *De la situation du Paradis terrestre*, Paris, 1691, in 12mo; 8. *Nouveaux Mémoires pour servir à l'Histoire du Cartésianisme*, 1692, in 16to; 9. *Statuts Synodaux*, Caen, 1693, in 12mo; 10. *Huetii Carmina*, Utrecht, 1700, in 12mo; 11. *Histoire du Commerce et de la Navigation des Anciens*, anonymous, Paris, 1716, in 12mo; 12. *Petri Danielis Huetii Commentarius de rebus ad eum pertinentibus*, Amsterdam, 1718, in 12mo; 13. *Traité Philosophique de la faiblesse de l'Esprit Humain*, Amsterdam, 1723, in 8vo; 14. *Origines de Caen*, Rouen, 1706, in 8vo; 15. *Diane de Castro, ou le faux Yncas*, 1728, in 12mo; 16. *Latin notes on Manilius*, 1679, in 4to; 17. *Dissertations sur diverses matières de Religion et de Philologie*, published by the Abbé Tilladet in 1714; 18. *Opusculs sur la Langue Française*, by the same. (A.)

HUFINGEN, a city, the capital of a bailiwick of the same name, in the duchy of Baden, and circle of the Lake. The bailiwick comprehends four cities or walled towns, twenty-seven villages and hamlets, with a population of 10,950 persons. The city stands on the river Bregach, and contains 201 houses, with 1370 inhabitants, subsisting by agriculture.

HUGUENOTS, an appellation given by way of contempt to the Reformed or Protestant Calvinists of France. The name originated in the year 1560, though authors are not agreed as to the occasion thereof; but the following derivations have been suggested. One of the gates of the city of Tours is called the gate Fourgon, by corruption from *feu Hugon*, the late Hugon. This Hugon was once Count of Tours, according to Eginhard in his life of Charles the Great, and to some other historians. He was it seems a very wicked man, who by his fierce and cruel temper made himself dreaded; so that after his death he was supposed to walk about in the night-time, beating all those he met with. This tradition the learned Thuanus has not scrupled to mention in his history. Davila and other historians pretend that the nickname of *Huguenots* was first given to the French Protestants, because they used to meet in the night-time in subterraneous vaults near this gate of Hugon; and what seems to countenance this opinion is, that they were first called by the name of

Hufingen
Hugue-
nots

Hulk
Hull.

Huguenots at this city of Tours. Others assign a more illustrious origin to the name; and say that the Leaguers gave it to the Reformed, because the latter were for keeping the crown upon the head of the line descended from Hugh Capet; whereas the former were for giving it to the house of Guise, as descended from Charles the Great. Others again derive it from a French and faulty pronunciation of the German word *edignossen*, signifying confederates, and originally applied to that valiant part of the city of Geneva which entered into an alliance with the Swiss cantons, in order to maintain their liberties against the tyrannical attempts of Charles III. duke of Savoy. These confederates were called *Eignots*, whence Huguenots.

The persecution which the Huguenots underwent has scarcely any parallel in the history of religion. Though they obtained a peace from Henry III. in 1576, it was only of short continuance; and their sufferings, mitigated by the famous edict of Nantes, granted to them in 1598 by Henry IV. were again renewed, after the revocation of that edict by Louis XIV. in 1685.

HULK, an old ship of war, fitted with an apparatus to fix or take out the masts of ships of the royal navy, as occasion requires.

HULK is also a name bestowed on any old vessel laid up as unfit for further service. It is probably derived from the *ἄλαδης*, or vessels of burthen, of the ancient Grecians.

HULL, a sea-port town of the east riding of the county of York, 234 miles from London by way of York, and 170 by way of Lincoln, and crossing the Humber from Barton. It is situated on a river of the same name, whose waters are received at the town into the Humber. The old part of the town, with the exception of the fine market-place, is ill built, with narrow streets; but that portion near the docks consists of handsome and commodious houses and streets. It is admirably situated for trade, from being at the mouth of the great rivers Humber, Ouse, and Trent, whose tributary streams, and the various canals that branch from them, afford facilities for the conveyance of the productions of a large space of country to Hull, and for receiving from it the requisite articles of foreign growth. These advantages have been improved by the activity of the inhabitants, who have constructed docks and warehouses, which, for accessibility and security, are only inferior to those of London and Liverpool. The building and equipment of ships is an important branch of industry; and those built at Hull are considered as superior to those constructed at the more northern ports. As there is a vast trade with Russia, Prussia, Sweden, and Denmark, centring at Hull, the builders are enabled to procure timber, iron, flax, hemp, and other articles for ship-building, on the most favourable conditions. This is the port from which the greater number of ships are despatched to the whale fishery on the coasts of Greenland. The owners of ships in Hull do not confine themselves to the trade of their own port, but charter them to all parts of the world, by the merchants of London, Liverpool, and other mercantile places. A considerable direct trade is carried on with the West India islands, with South America, the United States, the Mediterranean, and the ports of Holland and Belgium. Though the ancient gates remain, there are no land fortifications; but on the sea side the approach to the town is defended by competent batteries. As Hull is situated in the fertile district of Holderness, it is well supplied with necessaries from that part, as well as from the Lincolnshire country, on the other side of the Humber. It is a county of itself, with its own courts, sheriffs, and assizes; and a branch of the Trinity House has the superintendence of the pilots and the lights.

It is governed by a mayor and aldermen, and returns two members to parliament, chosen by the resident freemen and householders, who amount to about 3800. The town was formerly subject to inundations; but, by appropriate embankments and drainage, that inconvenience is no longer felt. The population amounted in 1801 to 29,516, in 1811 to 26,792, in 1821 to 31,425, and in 1831 to 32,958. If to this be added the inhabitants of Drypool, Sutton, and Sulcoates, which form a part of the town, the whole population will be from 45,000 to 50,000.

The gradual increase of the foreign trade of Hull may be seen by the following account of the number of vessels which have entered from foreign parts in each year from 1820 to 1833 both inclusive.

Years.	British Vessels:		Foreign Vessels.	
	Ships.	Tonnage.	Ships.	Tonnage.
1820	627	117,434	117	15,111
1821	578	113,133	106	13,820
1822	672	134,999	103	14,011
1823	778	153,313	203	26,103
1824	776	142,615	510	58,603
1825	1,171	227,363	1000	100,773
1826	717	130,674	854	70,137
1827	982	191,364	806	72,338
1828	881	156,925	674	60,082
1829	883	165,791	603	58,854
1830	897	163,657	556	51,015
1831	974	187,361	725	73,547
1832	762	140,768	454	43,481
1833	755	142,301	610	62,403
	11,453	2,167,718	7315	720,278

The amount of duties paid at the custom-house is next in value after London, Liverpool, and Bristol. The sum collected in the year 1833 amounted to L.624,057. 7s. 11d., from which was deducted, for drawbacks, bounties, and over-entry certificates, L.5292. 9s. 3d., and for the payment of salaries and incidents, L.24,470. 4s. 3d.; thus leaving a clear sum of L.594,294. 14s. 3d. remitted to London.

Another criterion of the proportional amount of trade is the amount of postage paid. By this Hull will appear to be the sixth town of England, and the tenth of the united kingdom. The sums collected at the towns at the post-office were,

	1833.	1834.
London.....	L.632,696	L.642,871
Dublin.....	80,611	69,096
Liverpool.....	70,011	74,080
Manchester.....	53,510	56,287
Edinburgh.....	42,759	41,864
Glasgow.....	36,053	36,481
Bristol.....	33,884	33,242
Birmingham.....	28,685	28,812
Leeds.....	20,316	21,331
Hull.....	14,607	14,853

Without more voluminous accounts than the nature of this work will admit, it is not easy to give a tolerable view of the articles imported at and exported from Hull; but an official account, in a condensed form, of the countries from which the vessels arrived that had entered the port of Hull in the years 1830, 1831, 1832, and 1833, will convey a tolerably accurate view of the nature of the whole trade.

COUNTRIES.	British Ships.		Foreign Ships.	
	Vessels.	Tons.	Vessels.	Tons.
Russia.....	266	256,090	60	12,255
Sweden.....	90	16,700	136	20,163
Norway.....	3	307	201	23,807
Prussia.....	160	31,113	228	29,346
Mecklenburg.....	5	628	58	5,589
Hanover.....	...	.....	115	6,344
Oldenburg.....	...	.....	174	10,911
Hanseatic towns.....	718	103,910	146	11,557
Netherlands.....	685	65,728	231	17,467
France.....	53	4,590	11	814
Portugal and Azores.....	45	4,223	10	1,134
Spain and Canaries.....	65	6,823	4	550
Tuscany.....	3	552	...	.....
Naples and Sicily.....	53	7,153	3	890
Austrian Italy.....	6	765	...	.....
Greek islands.....	3	580	...	.....
Turkey and Continental Greece.....	7	938	...	.....
North Africa.....	4	1,167	...	.....
Mauritius.....	1	147	...	.....
Canada.....	94	33,682	...	.....
New Brunswick.....	147	50,018	...	.....
Nova Scotia.....	10	2,509	...	.....
West Indies.....	1	153	...	.....
United States.....	16	5,505	1	236
Whale fishery.....	166	35,377	...	.....
Isles of Guernsey and Jersey.....	16	1,247	...	.....
Denmark with Holstein.....	27	2,935	862	65,006
Ionian Islands.....	12	1,472	...	.....

HULL, in nautical language, is the main body of a ship, without either masts, yards, sails, or rigging. Thus, *to strike a hull* in a storm, is to take in her sails, and to lash the helm on the lee-side of the ship; and *to hull*, or *lie a-hull*, is said of a ship the sails of which are thus taken in, and helm lashed a-lee.

HULST, a city of the Netherlands, in the province of Friesland and circle of Goes. It is strongly fortified, and, by means of a canal, is connected with Helle-Gat, which is joined to the West Scheldt at Ghent. It contains 400 houses, and (in 1830) 2124 inhabitants. Long. 4. 36. 25. E. Lat. 51. 16. 54. N.

HUMAN, in general, is an appellation given to whatever relates to mankind. Thus we say, the human soul, human body, human laws, and the like.

HUMANITY, the peculiar nature of man, by which he is distinguished from all other beings.

HUMANITIES, in the plural, signify grammar, rhetoric, and poetry, known by the name of *literæ humaniores*.

HUME, **DAVID**, an illustrious philosopher and historian, was born in the south of Scotland, on the 26th of April, old style, in the year 1711. His father was a descendant of the family of the Earl of Home or Hume; and his mother, whose name was Falconer, was descended from that of Lord Halkerton, whose title came by succession to her brother. This double alliance with nobility was a source of great self-complacency to Hume, who was not philosopher enough to despise such distinctions. But being the younger son of a country gentleman of no great fortune, his patrimony was consequently insufficient to support him. For this reason he was destined for the bar, and passed through the usual course of academical study in the University of Edinburgh; but having conceived an early passion for letters, he contracted an insurmountable aversion for any other pursuit; and whilst his friends ima-

gined that he was poring over Voet and Vinnius, he was secretly occupied with Cicero and Virgil. His fortune, however, being small, and his health somewhat affected by close application, he was induced to make a feeble attempt at engaging in business; and in the year 1734, he went to Bristol, with recommendations to some eminent merchants of that city. But the bustle and activity of a mercantile city were by no means suited to his meditative disposition; and, in a few months, he left it in disgust. Immediately after this, he went over to France with the view of prosecuting his studies in private, and established himself first at Rheims, and then at La Fleche in Anjou, where, in order to maintain his independence, he practised the most rigid frugality. The writings of Locke and Berkeley having directed the attention of many learned men towards metaphysics, Mr Hume had early applied himself to studies of this kind, and, during his retreat, composed his Treatise of Human Nature, which he published at London in 1738. This work he had meditated even while at college; a circumstance which proves at once the self-sufficiency of Hume, and the early bias of his mind towards scepticism. He had the mortification, however, to find his book generally neglected, and to perceive that the taste for systematic writing was now upon the decline. "It fell," he says, "dead-born from the press, without reaching such distinction as even to excite a murmur among the zealots." He adds, however, that "being naturally of a cheerful and sanguine temper, he soon recovered the blow." But this pretended equanimity was, we suspect, mere affectation. For the work, so far from passing altogether without notice, was criticised with much ability in the only review of that period, *The Works of the Learned*; and the critique has with some reason been ascribed to Warburton. One remark of the reviewer is singular, and may be almost thought prophetic. "This work abounds with ego-

Hume. tisms. The author would scarcely use that form of speech more frequently, if he had written his own memoirs."

In 1742, Mr Hume published, with more success, the first part of his *Essays moral, political, and literary*. But these, though better received than his former publication, contributed little to his reputation as an author, and still less to his profit; and his small patrimony being now almost spent, he accepted an invitation from the Marquis of Annandale to go and live with him in England. With this nobleman he remained a twelvemonth, during which time his small fortune was considerably increased. He then received an invitation from General St Clair to attend him in the capacity of secretary to the expedition which was at first meant against Canada, but afterwards ended in an incursion on the coast of France. In 1747, he received an invitation from the general to attend him in the same situation in his military embassy to the courts of Vienna and Turin. He then wore the uniform of an officer, and was introduced at these courts as aide-de-camp to the general, along with Sir Harry Erskine, and Captain, afterwards General Grant. These two years were almost the only interruptions which his studies experienced during the whole course of his life; but his appointments made him some compensation on this account, for he was now "master of near L.1000," and, in his own opinion, "independent." In 1749 he returned to Scotland, and lived about two years with his brother at his country-house, where he composed the second part of his essays, called *Political Discourses*. And now the general approbation of his productions was indicated by a more extensive sale than formerly, and likewise by the numerous answers published by different persons in order to counteract their supposed pernicious tendency. In 1752 were published at Edinburgh his *Political Discourses*, the only work of his which was well received on its first appearance; and the same year at London, his *Inquiry concerning the Principles of Morals*, which in his own opinion was incomparably the best of all his works. This year also he was appointed librarian to the Faculty of Advocates at Edinburgh; but the principal advantage resulting from this employment was, that he had thereby the command of a large library. He then formed the design of writing the *History of England*; but deeming the whole to be too extensive, he confined himself to the history of Britain under the house of Stuart; and in 1754 published the first volume, entitled *A Portion of English History, from the Accession of James I. to the Revolution*, in 4to. The book, however, was almost universally decried on its first appearance, and soon afterwards seemed to sink into oblivion. Dr Herring, primate of England, and Dr Stone, primate of Ireland, were the only persons of the author's acquaintance who approved of the work, and sent him messages not to be discouraged.

But notwithstanding the approbation of these eminent men, Mr Hume's spirits were so much sunk by his want of success, that he had some thoughts of retiring to France, changing his name, and bidding adieu to his own country for ever. This design, however, was rendered impracticable by the breaking out of the war of 1755 between France and Britain. He then published his *Natural History of Religion*, to which, soon after its appearance, an answer was published in the name of Dr Hurd, bishop of Lichfield and Coventry, though, in reality, it proceeded from Bishop Warburton, as Dr Hurd afterwards expressly declared. In 1756 was published the second volume of the *History of the Stuarts*. This was better received, and helped to retrieve the character of the former volume. Three years afterwards his *History of the House of Tudor* made its appearance, and was almost as ill received as the *History of the Stuarts* had been, the reign of Elizabeth being particularly obnoxious. The author, how-

VOL. XI.

ever, had now learned to despise popular clamour; and proceeded to finish at his leisure the more early part of the *English history*, which was published in 1761, and received with tolerable success.

Mr Hume being now turned of fifty, and having obtained by the sale of his books a competent fortune, retired into his native country of Scotland, determined never more to set his foot out of it. From this resolution, however, he was diverted by the Earl of Hertford, whom he attended as secretary in his embassy to Paris in 1763. In 1765, the earl being appointed lord-lieutenant of Ireland, Mr Hume was intrusted with the sole management of the business of the state till the arrival of the Duke of Richmond towards the latter end of the year. In 1767, he returned to Edinburgh, with a much larger income, procured for him by the Earl of Hertford, than he formerly possessed; and now formed the same design he had previously entertained, namely, of burying himself in his philosophical retreat. In this, however, he was again disappointed, by receiving an invitation from General Conway to become under secretary of state; and this invitation he was prevented from declining, both by the character of the person, and his connections with Lord Hertford. In 1769 he returned to Edinburgh, possessed of L.1000 a year, healthy, and, though somewhat stricken in years, yet having a prospect of long enjoying his case, and of seeing the increase of his reputation. Of his last illness and character he has himself given the following account:—"In spring 1775 I was struck with a disorder in my bowels, which at first gave me no alarm, but has since, as I apprehend it, become mortal and incurable. I now reckon upon a speedy dissolution. I have suffered very little pain from my disorder; and, what is more strange, have, notwithstanding the great decline of my person, never suffered a moment's abatement of my spirits; insomuch that were I to name the period of my life which I should most choose to pass over again, I might be tempted to point to this latter period. I possess the same ardour as ever in study, and the same gaiety in company. I consider, besides, that a man of sixty-five, by dying, cuts off only a few years of infirmities; and though I see many symptoms of my literary reputation breaking out at last with additional lustre, I know that I could have but few years to enjoy it. It is difficult to be more detached from life than I am at present. To conclude, historically, with my own character, I am, or rather was (for that is the style I must now use in speaking of myself, which emboldens me the more to speak my sentiments)—I was, I say, a man of mild dispositions, of command of temper, of an open, social, and cheerful humour, capable of attachment, but little susceptible of enmity, and of great moderation in all my passions. Even my love of literary fame, my ruling passion, never soured my temper, notwithstanding my frequent disappointments. My company was not unacceptable to the young and careless, as well as to the studious and literary; and as I took particular pleasure in the company of modest women, I had no reason to be displeased with the reception I met with from them. In a word, though most men anywhere eminent have found reason to complain of calumny, I never was touched, or even attacked, by her baleful tooth; and though I wantonly exposed myself to the rage of both civil and religious factions, they seemed to be disarmed in my behalf of their wonted fury. My friends never had occasion to vindicate any one circumstance of my character and conduct; not but that the zealots, we may well suppose, would have been glad to invent and propagate any story to my disadvantage; but they could never find any which they thought would wear the face of probability. I cannot say there is no vanity in making this funeral oration of myself, but I hope it is not a misplaced one; and

4 x

Hume. this is a matter of fact which is easily cleared and ascertained." His fears concerning the incurableness of his disorder proved too true. He died on the 25th of August 1776, and was interred in the Calton-hill burying-ground, Edinburgh, where a monument is erected to his memory.

Hume's account of his own life is dated only four months previous to his decease; and as he was then aware that a recovery from the malady under which he suffered was hopeless, if not impossible, it may be considered as the testimony of a dying man respecting his own character, conduct, and opinions. But it disappointed those who expected to find in it some acknowledgment of error in speculation, and perhaps also some expressions of regret for the injury done to many by the promulgation of doctrines calculated to unsettle their faith and annihilate their hopes in religion. Hume, however, was not a man from whom any thing of this sort could have reasonably been expected. Devoid of all sense of religion in his own mind, and constitutionally disposed to call in question the received opinions concerning it, he had, from a mere fondness for speculation, mixed with a love of philosophical applause, laboured to extirpate from the human mind all respect for the authority of revelation, or the obligations imposed by it, and had even treated the disciples and advocates of Christianity with a contempt bordering on detestation, "as if he had been revenging a personal injury." Having early imbibed the principles of a philosophy the direct tendency of which was to unsettle all the foundations of belief, philosophical and moral, as well as religious, and thus to undermine the best interests and dissolve the firmest bonds of society, he went on doubting until he even doubted whether he doubted, and at last became so entangled in the inextricable mazes of scepticism, that all kinds of opinion or belief appeared to him involved in nearly equal uncertainty. With a mind thus overclouded by its own speculation, and a natural temper, in which quiet self-love was interwoven with perfect equanimity, it is scarcely to be wondered that Hume, instead of being visited by repentance or regret, should have terminated an otherwise irreproachable life "in such a happy composure of mind that nothing could exceed it." In short, he died in the same state of mind in which he had lived, "believing nothing, and fearing nothing;" and though, to men of different sentiments, there is something sickening in the levity of his imaginary conversations with Charon, when in the near prospect of eternity, yet this seems in no degree inconsistent with our general conception of his character, and still less with the desire of rendering his death a sort of triumph to philosophy, over what he and some at least of his friends deemed superstition. In fact, he was at last surrounded by men who, from congeniality of sentiments, contemplated his end with satisfaction; and it is by no means improbable, that the same love of approbation for which he was distinguished throughout life, should have contributed to give a peculiar colouring to its close. But however this may have been, his social qualities, his wit, his acuteness, his generosity, and, we may add, his fame, preserved to him the regard of his learned countrymen, who forgot the sceptic in the philosopher, and the infidel in the historian.

It is indeed as an historian and a political writer that Hume will perhaps be best known to posterity. Yet even in his capacity of historian he has many faults. As slavish in politics as he was daring in religion, he does not scruple to disguise facts from party motives; and he seldom omits an occasion to sneer at Christianity under the name of fanaticism or superstition. The inexpressible charm of his style has been universally felt and acknowledged; but this is at best only a poor compensation for that negligence which prevents an historian from discovering the truth, or that prejudice which leads him to misrepresent it. Hume, we

fear, sinned in both ways; and his reputation has suffered in consequence. His errors have been detected, his misrepresentations exposed, and his unjust aspersions refuted, often by the very authorities which he professed to have consulted. But his political and historical disquisitions display throughout an acuteness, penetration, and comprehensiveness which no writer of modern times has approached, and which, notwithstanding all the defects we have alluded to, will secure to him a rank permanently high in the literature of his country. In his political essays, he anticipated many truths, which it has required more than half a century adequately to unfold and illustrate.

Of the character of Hume as a speculative philosopher the reader will find the most able and exact appreciation in the First and Second Dissertations prefixed to the present work. That he was profound, far-sighted, and even original, in as far at least as originality consists in discovering consequences which had escaped the penetration of others, has been admitted even by his opponents; nor can it be doubted that intellectual philosophy has benefited by the rare sagacity with which he traced some of the prevailing systems to their necessary consequences, and thus showed how dangerous it is to form theories on a subject where the sphere of observation is extremely confined, and direct experiment is in a great measure impracticable.

Few books have been so often reprinted as Hume's History, and none has ever experienced greater injustice, than by being united, in the same form, with Smollett's Continuation. The best and most complete edition of his philosophical works, is that which was published at Edinburgh, 1826, in four vols. 8vo, including all the essays, and exhibiting the more important alterations and corrections in the successive editions published by the author. In this edition, which was superintended by Mr David Constable, the essays are reprinted from that of 1777, corrected by the author for the press a short time before his death, and which he desired to be regarded as containing his philosophical principles; whilst the essays contained in the early editions, but which were omitted in that of 1777, are annexed to the fourth volume, together with two essays, the one on Suicide, and the other on the Immortality of the Soul. In addition to the author's Life, written by himself, the account of his controversy with Rousseau, originally printed in French, and shortly afterwards (in 1766) in English, is also prefixed. The English translation was superintended by Mr Hume himself; and as it relates to an extraordinary occurrence in the lives of these eminent persons, it has justly been thought a suitable appendage to the short memoir which Mr Hume left of his own life.

HUMECTATION, formed of humour, moisture, moistening, in pharmacy, the preparing of a medicine by steeping it for a time in water, in order to soften and moisten it; or to cleanse it, or prevent its subtle parts from being dissipated in grinding, or the like.

HUMECTATION is also used for the application of moistening remedies. In this sense we say, embrocations, emplastres, unctions, humectations, fomentations, and so on.

HUMIDITY, that quality in bodies by which they are capable of wetting other bodies. This differs very much from fluidity, and seems to be merely a relative thing, depending on the congruity of the component particles of the liquor to the pores of such particular bodies as it is capable of adhering to, penetrating a little, or wetting. Thus, for instance, quicksilver is not moist with regard to our hands or clothes, but may be called so in reference to gold, tin, or lead, to whose surfaces it will perfectly adhere, and render them soft and moist.

HUMILIATI, a congregation of religious persons in the church of Rome, established by some Milanese gentlemen upon their release from prison, where they had been confined under the Emperor Conrad, or, as others say, un-

Hume
|
Humiliati

Humiliation || **Hungary.**
 der Frederick I. in the year 1162. This order, which acquired great wealth, and had no less than ninety monasteries, was abolished by Pope Pius V. in 1570, for their luxury and cruelty, and their houses given to the Dominicans and Cordeliers.

HUMILIATION, the act of humbling or of abating a person's pride, and bringing him lower in his opinion. In this sense humiliation is distinguished from mortification; for humiliation brings down the mind, but mortification subdues the flesh.

HUMILITY is a virtue consisting in the moderate value which a person puts upon himself, and every thing relating to him. Or, more particularly, it consists in not attributing to ourselves any excellence or good which we have not; in not overrating any thing which we have or do; in not taking an immoderate delight in one's self; in not assuming more of the praise of a quality or action than belongs to us; and in a lowly sense and acknowledgment of our imperfections, errors, and sins. This virtue expresses itself in the modesty of our appearance, of our pursuits, and of our behaviour towards other men. It is distinguished from affectation, bashfulness, and meanness.

HUMMOCK ISLAND. There are two small islands of this name, in the Eastern Seas, one fifteen miles south of Mindanao, in long. 126. 37. E. and lat. 5. 24. N. The other, which is inaccessible except at one point, lies in long. 123. 40. E. and lat. 24. 15. N.

HUMOUR, from the Latin *humor*, in its original signification, stands for moisture in general; and hence it has been restricted to signify the moisture of animal bodies, or those fluids which circulate through them. As the temper of the mind has been supposed to depend upon the state of the fluids in the body, humour came to be synonymous with temper and disposition.

HUMOUR is often made use of to express a particular species or modification of wit. See **WIT**.

HUMPHREY, LAURENCE, a learned English divine, was born at Newport-Pagnell, Buckinghamshire, about the year 1527. He received his school education at Cam-

bridge, and afterwards became a fellow of Magdalen College, Oxford, where he took his degree as master of arts in 1552. In 1555 he retired, with other Protestant refugees, to Zurich, in Switzerland, where he resided for some time; but after the death of Queen Mary he returned to England, where he was restored to his fellowship in Magdalen College, from which he had been expelled, and, in 1560, appointed queen's professor of divinity at Oxford. In 1570 he was made dean of Gloucester; in 1580 he was removed to the deanery of Winchester; and, if he had not been disaffected towards the church of England, in other words, a moderate and conscientious nonconformist, he would probably have been raised to the episcopal bench. Humphrey was considered as a great and general scholar, an able linguist, a profound theologian, and, for his time, an excellent writer. He died early in 1590, leaving a wife who had brought him twelve children. His works are, 1. *Epistola de Græcis literis, et Homeri lectione et imitatione*, Basil, 1558; 2. *De Religionis conservatione et reformatione, deque primatu Regum*, Basil, 1559; 3. *De Ratione interpretandi auctores*, Basil, 1559; 4. *Optimates, sive de Nobilitate, ejusque antiqua origine*, Basil, 1560; 5. *Joannis Juelli Angli, Episcopi Sarisburiensis, Vita et Mors*, London, 1578; 6. Two Latin Orations spoken before Queen Elizabeth, one in 1572, and the other in 1575; 7. *Sermons*; 8. Some Latin pieces against the Papists, particularly Campian. (A.)

HUNDRED, HUNDREDUM, or *Centuria*, a part or division of a county, and anciently so called from its containing an hundred families, or from its furnishing an hundred able men for the king's wars. After Alfred's dividing England into counties, and giving the government of each county to a sheriff, these counties were divided into hundreds, of which the constable was the chief officer.

HUNFELD, a town of the province of Fulda, in Hesse-Cassel, the capital of a bailiwick of the same name, which contains one town and thirty-two villages, with 7633 inhabitants. The town is situated on the river Haun, and has some considerable bleacheries, with 1730 inhabitants.

HUNGARY.

THIS is the largest division of the dominions under the government of the imperial house of Austria. It is formed into three separate parts, politically distinguished as the kingdom of Hungary, the principality of Siebenburgen, and the military districts of Carlstadt, Warasdin, and the Bannat. Although the other parts will be noticed in their alphabetical order in this work, this general head will comprehend such circumstances as may be applicable to the whole, because its chief purpose is to describe what, in the Austrian administration, is denominated the kingdom of Hungary.

The names of the circles, their extent, their population, and the capitals of each circle, are as follow:

Circles.	Extent in Square Miles.	Population.	Capital Cities.
Hither Danube.....	21,890	2,572,129	Presburg.
Farther Danube.....	17,402	1,943,143	Ungersch-Altenburg.
Hither Theissa.....	15,249	1,597,105	Leutschau or Locse.
Farther Theissa.....	27,368	2,231,353	Szigeth.
Slavonia.....	3,784	348,340	Ezek or Essegg.
Croatia.....	3,786	558,066	Warasdin.
Peculiar (<i>besondere</i>) Districts.....	15,718	1,121,136	Agram or Zagrab.
	105,197	10,371,272	

The capital of the whole kingdom was formerly the city of Presburg, but since 1784 that honour has been enjoyed by the city called by the Germans Ofen, and by the Hungarians Buda, which is in fact a kind of suburb to the city of Pesth, but separated from it by the river Danube, over which there is a long wooden bridge, which keeps up the communication between the two places, whose united population amounts to 95,000 souls.

Few countries contain a greater variety of races than Races of are to be found in the population of Hungary, or classes the people. varying more in their language, religion, occupations, manners, and in their progress towards civilization. The most numerous of these races are the *Magyars*, the original inhabitants. They reside chiefly in the central and most fruitful plains, where the agriculture is most easily conducted, and leave to the Slavonians that part of the country which is mountainous or sterile, or where more severe labour is required. They are remarkable for their strength rather than their height, being very muscular, with broad shoulders, but with rather short legs and arms; and their countenances are distinguished by a conscious expression and a look of self-importance. Their language is clear and concise, and the sound of it is soft and pleasing. They are much attached to it, and generally prefer it to the Latin, which all but the very lowest of them can speak. They are divided into three branches, each of

Extent
and popu-
lation.

Hungary. which has its peculiar dialect, and are distinguished by the districts they occupy thus: the Magyars of the Danube, the Magyars of the Theissa, and the Paloczin Magyars. Another of the greater races of the people is the Sclavonian, who inhabit chiefly the mountainous districts within the kingdom, both in the north and the south. They are of a darker complexion than the Magyars, but are well formed, and the females are distinguished by their forms, and graceful figures and movements. This race is distinguished by different names, and they differ much in their several dialects. The Slovaks are the oldest settlers in the hilly district, and amongst them are some originally from Bohemia, some few from Poland, many from Red Russia (called Russniaks), and others in the south from Illyria, sometimes called Serbians. In these are comprehended the greater number of the Croats, many of the Bulgarians, and, near the sea coast, about Fiume, the Liburini. As these have various dialects, some approaching nearer to the Latin than others, but all in some degree connected with that language, the intercourse between the tribes is maintained by a species, much adulterated, of the tongue of ancient Rome. The Germans in Hungary are a numerous body; and the two descriptions of them are distinguished by the natives as Saxons and Suabians. The first settled in the country some centuries ago, and came as colonists from Saxony and the banks of the Rhine. The second colonists have obtained settlements at various but more recent times. The whole number of this race is estimated at about 700,000. They inhabit a tolerably good and extensive breadth of land along the frontiers of the provinces of Austria and Steyermark, from the Danube to the Raab, and have, in the interior of the land, several cities and towns, as well as numerous small places in the southern and western divisions of Hungary. They mostly retain their original language, which, however, is much corrupted by the adoption of words and phrases from the several tribes with which they are in contact. The smaller settlers in Hungary are the Wallachians, the New Greeks or Macedonians, a colony of French in the county of Torontal, another of Italians on the sea-coasts, and numerous Turkish individuals in all the commercial towns and cities. About 140,000 Jews are established in Hungary, who, with some scattered Armenians in most of the towns, form the retail traders.

Classes of
inhabit-
ants.

The inhabitants are divided into nobles, citizens, and peasants. The first class, though differing in titles and rank, have all equal privileges; the principal distinction between them is, that, in the assembly of the states, or diet, the magnates have personally a seat and vote; whilst the other nobles vote by their representatives. The higher clergy are considered as nobles, and enjoy similar privileges. The nobility can alone possess free lands, or those enjoying the *jus dominicale*, and they are exempt from taxes, tithes, and the quartering of soldiers; but, on the other hand, they are bound to perform personal military service, when the pressure of circumstances compels the diet to decree the levy *en masse*, or, as it is called, the *insurrection*.

The citizens or burghers are the inhabitants of those cities which own no superior lord but the monarch. These have privileges similar to the nobility, by which they are exempted from the payment of taxes and tithes, and from the quarterings of the military; and their deputies have seats in the diet. They are governed by their own magistrates, and manage their own local funds. They cannot, however, hold estates out of their cities, nor institute a suit against the nobles in their individual names, but only in that of the corporation to which they belong. The peasants generally are slaves, but with a more or less mitigated degree of servitude; and some few, under the de-

nomination of German, or other colonists, are free. The lot of the common peasants has, however, been of late years much improved. They are more protected against the power of their lords, by being allowed to acquire property, and by being permitted to leave their estates to their heirs, and to become, if they can do so, burghers of the royal cities. Their condition is, however, still a severe one, as they bear almost all the burdens of the state, and are incapable of commencing suits in the courts against either the nobility or burghers.

Although all the Christian sects enjoy equal civil rights and similar legal establishments, the Roman Catholics are the most numerous body. They consist of two classes, one adopting the Latin ritual, the other adhering to that of the Greek church, and called United Greeks. According to a survey made in 1825, the former amounted to 5,233,952 individuals, and the latter to 624,259. The hierarchy for these 5,858,211 persons consists of three archbishops, in the cities of Gran, Kolocsa, and Erlau; of seventeen bishops, viz. in Agram, Bosnie with Sirmien, Esanad, Fünfkirchen, Grosswardein, Kaschau, Neusol, Neitra, Raab, Roseneau, Steinamanger, Stuhlweissenburg, Szathmar, Veszprim, Waizen, and Zeug with Zips; and, besides these, there are the following dignities, viz. 307 canonries, 160 abbeys, eighty-nine archdeaconries, and 307 vice-archdeaconries. This sect has 3723 parochial churches and numerous chapels, which are served by 6345 priests. Next in number to the Roman Catholic is the orthodox Greek or non-united church, comprising 1,452,516 persons. This church has for its rulers an archbishop at Carlovitz, and seven bishops at the cities of Bacs, Temeswar, Carlstadt, Packracz, Arad, Ofen, and Werschetz. They have sixty presbyteries, twenty-five large convents, 1643 churches, 2122 pastors, and 2781 lay ecclesiastics, who form a kind of monks. The Protestant Reformed church, on the Geneva model, consists almost wholly of Magyars, and amounts to 1,251,226 persons. They are under four superintendencies, established in the cities of Pesth, Papa, Miskolcz, and Debreczin; and under these there are thirty-four synods, 1359 churches, and 1407 pastors. The Lutheran church consists of 667,945 members, and is governed by four superintendents or bishops, residing in the cities of Presburg, Neusol, Odenburg, and Teisscholz; under these are thirty-five consistories, with 487 parish churches, many chapels, and 518 ministers. Besides these there are a few assemblies of Armenians, and a few Mahomedans. The Jews have 342 synagogues, and a rabbi to each. Though the population has vastly increased since 1825, it is not supposed that the proportional numbers of the several religious parties has been materially altered. Each of these sects has its separate schools, colleges, and universities; and education is more diffused than in many of the other parts of Europe. In most of the sees schools for Catholics are supported by the prelates; and besides, there are royal academies at Agram, Grosswardein, Kaschau, Presburg, and Raab; and at Pesth there is one of the oldest and richest universities in Europe. In the schools of the higher class, including the university, the number of students is stated at 20,318. The schools for primary instruction in the villages are but slightly encouraged, nor do the peasantry discover much inclination for instruction; but in the cities and large towns there are 103 schools for the use of the Catholics. The Protestants of the reformed class, as well as the Lutherans, have schools for primary instruction in each of their parishes. The former have burgher schools in the cities, and seven gymnasiums, and three colleges at Debreczin, Saros-Patak, and Papa, with 4180 students. The Lutherans have nine gymnasiums and good colleges at Eperies, Presburg, Odenburg, and Kesmark, in which there are 2660 students. The non-

Hungary. united Greeks have till recently much neglected the education of the adherents of their church; but of late years some attempts at improvement have been made. They have established some schools, the best of which are at St Andrew, Alt-Ofen, and Miskolcz. As aids to the higher branches of science, may be noticed the astronomical observatories at Ofen and at Elau, the chemical and mineralogical institutes at Schemnitz, the military academy at Pesth, and the society founded in 1832 in that city, under the title of the Imperial Academy of Sciences.

Mountains and face of the country. The northern and western sides of Hungary are remarkably mountainous. The Carpathian Mountains form a semicircle extending from the south-east portion of the kingdom till it meets the Danube on the western frontier. In the circle they describe, many projecting ranges extend themselves into the level land. On the western side the Carinthian Mountains cover a considerable portion of the kingdom. The highest points of the Carpathian Mountains are, the Lomnitzer Spitze, 8545 feet above the level of the sea; the great Krywan, 8218; the Caesmark, 8194; and the Uniacke, 7597. The loftiest parts of the Carinthian Mountains, though within the Austrian dominions, form no portion of the kingdom of Hungary, nor do any part of the Noric or Rhetian Alps. The greatest extent of level land in Hungary is found to the eastward of the river Theissa, forming a rich plain of more than 20,000 square miles. Another level, called the Three-Cornered Plain, is found to the eastward of the Danube, beginning near Presburg, the base of which line extends 150 miles in length. The soil is as various as the elevation of the land; on the mountains it is dry and sterile; on the terraces that surround them, of moderate fertility, and of most luxuriant richness on the plains, but mixed with considerable tracts nearly barren, where, for many miles, neither tree, stone, bush, nor living creature, are to be seen, with sand-hills, varying their position with the violent storms that frequently occur.

Cultivation. Hungary, however, is a country highly productive, yielding the largest proportion of the necessities of life of any part of the ancient Austrian dominions, and furnishing, from its surplus, large quantities of corn, tobacco, fruit, wine, and cattle, to the neighbouring states. According to the account of Grellman, the extent of land is 39,329,000 jochs, the joch being equal to an English acre and two fifths. Of this land only 23,905,126 jochs are in cultivation; the remainder is composed of sandy deserts, lakes, morasses, and barren mountains. The productive lands are thus divided: 4,897,218 arable, 638,767 gardens, 911,176 vineyards, 2,129,225 meadows, 5,536,000 pastures, 850,000 ponds, and 8,940,740 woods. The northern part of Hungary scarcely produces sufficient corn for its own consumption; but the south is the granary, not only for the northern part of the kingdom, but, after deficient harvests, for a great portion both of Germany and Italy. The corn consists of wheat, rye, barley, oats, peas, and, in the most southern parts, of rice and maize. Next to the cultivation of corn, the growth of wine is the most considerable object of attention, and managed with the greatest care. The wines of Tokay have long been celebrated throughout Europe, and are of the first class of sweet wines; but the wines of Odenburg, of Rust, and of Ofen, are very highly valued, though but little known beyond the boundaries of the Austrian empire. The whole of the annual produce of wine is estimated by Blumenbach at 4,500,000 hogsheads, and valued at nearly ten millions sterling. Notwithstanding the proportion of woodland, the eastern part of the kingdom is much distressed from the want of fuel; but the west furnishes much wood, both for firing and building, and considerable quantities of gall-nuts, turpentine, pitch, tar, and pot and pearl ashes, for the supply of the surrounding countries.

Hungary. The other productions of agriculture which furnish commerce, are hemp, flax, and tobacco. This last article has been long and successfully cultivated; and that produced in the provinces of Tolna, of Fünfkirchen, and in the peninsula of Murakoz, is highly prized for its peculiarly aromatic flavour. The forests are of great extent, covering nearly 15,000,000 English acres. They furnish abundant fuel for home consumption; and some timber, with much charcoal, is exported. Vast quantities of gall-nuts are collected in the woods; and the bark, especially of the oak, is an article of considerable traffic with Turkey, and with other countries.

The breeding of cattle is an important branch of the rural economy of Hungary. The horses, though small, are active and hardy; but, in spite of the measures pursued by the government to improve the races, they are still much inferior to those of most parts of the empire. They are generally set to work at too early a period, and their food is usually scanty and bad. They have, however, been somewhat improved of late years by the institution of studs in different parts, whence stallions are gratuitously supplied. The whole number of horses does not exceed 480,000 of all kinds. The horned cattle are a race much valued in every part of the empire, though they receive but little attention. The extensive *steppes* between Debreczin, Temeswar, Neusatz, and Pesth, are the native homes of these beasts. Their number is 886,900 oxen, and 1,508,100 cows. These, by their sale to the surrounding countries, produce annually nearly L.500,000 sterling. The numbers of the sheep are stated to be upwards of 8,000,000. There are prodigious flocks on the plains between the Danube and the Theissa, and on the elevated grounds of that district. The wool is coarse, and the owners estimate the cheese, milk, and flesh, more than the fleeces. In Western Hungary, on the other hand, the large flocks having been much improved of late years by crosses with the Merino breeds, and with the sheep of Padua, yield fine wool, which, to the value of L.500,000, is exported. Swine are reared in abundance; and though, when cured, they form the principal animal food of the inhabitants, there are yearly from 200,000 to 250,000 of these animals exported. The feathered tribes furnish a part of the annual wealth of the country. The greater part of the goose feathers, in which the Jews of Prague trade, come from Hungary; and the capital of the Austrian dominions is supplied from thence with that commodity. The rearing of silk-worms has been of late much attended to in some of the southern parts of Hungary, especially in the Bannat. The mulberry trees are very flourishing, and great progress is expected in future, but the undertaking is yet in its infancy.

The southern part of Hungary is a country enriched by minerals of various kinds. About two thirds of the mines belong to the crown, and are worked on account of the government, under an expensive system of administration, and with a profusion of royal officers. These are formed into four divisions, the principal seats of which are at Chemnitz, Schmolnitz, Nagybanja, and Oravicza, and employ, in the various operations, about 45,000 workmen. The labourers occupied in these mining operations are generally emigrants from Moldavia and Wallachia. We have no statistical accounts of the actual produce of the mines; but that of gold, silver, and iron has of late years increased. The first two of these metals have advanced, in the last fifteen years, from the value of L.220,000 to nearly L.400,000, and the increase in iron has been in nearly the same proportion.

The manufactures of Hungary are yet in an infant state. The kingdom has been long accustomed to supply raw materials to the surrounding countries, and to draw from them their manufactured goods. The inhabitants are not

Hungary. disposed to labour in confined houses; and, till within the last twenty years, their principal occupation, exclusively of agriculture, was confined to making very coarse cloths, and various kinds of woodware, for furniture, musical instruments, and toys. The spinning of flax is a domestic manufactory, carried on by the females of almost every peasant's family. The annual quantity produced is estimated at sixteen million of ells, or about ten million yards, the far greater part of which is consumed within the kingdom. The principal bleaching works are at Roseneau, where about 300,000 ells are annually whitened, all of the finer kind. There is much woollen cloth made in small manufactories scattered over the kingdom, but it is of a coarse quality, and adapted only for the use of the peasantry. Within the last thirty years more extensive factories have been established in Gacs, Illawa, Kaschau, Munkatsch, Lipersdorf, Mosztenie, and Presburg. These have been mostly founded by Germans, and the greater part of the operative people are of that nation. At these places the use of various kinds of machinery has been introduced, and the cloth made in them, from the wool of a mixed breed of sheep, partly of the Merino and partly of the Paduan races, is of fine quality and well finished. There are forty paper-mills in Hungary, which produce printing and writing paper, all of a very wretched quality, except some from the mill belonging to the university, which is tolerably good. Silks and ribbons are made at Pesth, Grosswardein, and Presburg, but to a very small extent. The leather of Hungary is much valued throughout the whole Austrian territories, but the quantity of curried leather, prepared mostly at Presburg, is not equal to the consumption; and the hides of their cattle are sent to Germany, from which they return in a state fit for use. The tanneries are numerous in Presburg, Fünfkirchen, Ratko, Zips, and Debreczin. The iron produced by the native mines is manufactured into the various articles which the wants of the inhabitants require, at Zips, Abouigvar, Sarosch, Zemplin, Vorschod, and through the whole county of Gomorer. The best steel is made in Diosgyvor, and the vicinity of Neusol; and the swords and other weapons manufactured in the different hardware districts are esteemed as of excellent quality, though of clumsy and grotesque forms. Glass is made (but scarcely any but green) in twenty-five glass-houses in different parts of the kingdom. The sugar refiners supply the domestic consumption. Snuff and tobacco are made almost exclusively from the plants raised on their own soil. The soap of Hungary, which is very good, is principally made from natron in Debreczin, where there are seventy-eight manufactories of that article. Linseed-oil, oil of turpentine, corn spirits, cordials, especially Rosoglio, and a medicine for wounds, known through Germany by the name of the Hungarian Balsam, refined saltpetre, and pearl ashes, are the productions of the other manufactories.

Commerce. Hungary is surrounded on every side by the other Austrian dominions. The states of that country are proud of their independence as a separate kingdom, and tenacious of their privileges, especially of their exemption from the taxes imposed by the cabinet of Vienna. As the emperor's government has no wish to embroil itself with the states by attempting internal taxation, it extracts a revenue by surrounding Hungary with custom-houses, where tolls are collected on every commodity that enters into the kingdom, or passes from it into the hereditary states. The toll thus collected is one-thirtieth part of the commodity, or three and a third per cent. on the value of it. The very high rate of carriage, arising from the bad state of the roads, is, however, a greater impediment to the exchange of commodities than even this tax at the frontiers. The principal trade of Hungary beyond the immediate boundaries is with Poland and Silesia, which countries

draw from thence their wine, and with the north of Italy, Hungary, to which its surplus corn is transported. The port of Fiume is connected with Hungary by the only good roads the kingdom possesses, and may be considered as its haven for exportation and importation, and as alone bringing it into contact with distant countries. The central point of internal trade is Pesth, where, at four great fairs, the concourse of buyers and sellers is so great, that the prices settled by them, if they do not absolutely govern, in a great degree regulate, those of the other parts of the kingdom. From the central city the commerce diverges in four great branches: 1st, Towards the German Austrian dominions by Raab, Presburg, Komorn, and Odenburg, at each of which places considerable business is transacted; 2^d, towards Gallicia, through Kaschau, Eperies, and Leutschau; 3^d, to Siebenburgen, Moldavia, and Wallachia, through Debreczin, Ezegegin, and Temeswar; and, 4th, to the Turkish dominions beyond the Danube, through Neusatz and Semlin. At all these places considerable annual fairs or markets are held, which are resorted to by vast numbers of merchants, not only from Germany and Poland, but by the Turks, Armenians, Greeks, and even Tartars. Besides the marts at these cities, there are in Hungary sixteen hundred other places where annual fairs are held. The means of internal transit furnished by the rivers are a great assistance to commerce. The Danube is navigable for craft of two hundred tons burden, the Theissa for those of one hundred; and the other rivers, the Save, the Drave, the Waag, the Gran, the Unna, and the Kulpa, are all navigable for smaller vessels of various dimensions. The recent introduction of steam navigation has been extended to Hungary, and promises great advantages to the future commerce with the Black Sea. Some impediments on the Danube have already been removed, and measures are in progress for removing the remainder; but already several steam-vessels have completed their voyage from Pesth to Constantinople. The chief commodities exported from Hungary are the raw products of the soil. The greatest in amount are live cattle; the next in value to these are, corn, tobacco, wine, hides, and wool. The chief imports are, colonial ware, linen, cotton, and woollen articles for clothing, and some few foreign luxuries. The value of the exports is said to exceed that of the imports to the amount of L.750,000 annually.

The government of Hungary is a limited monarchy, Constitution. at present hereditary in the house of Hapsburg; but, in case of the failure of all the branches of that family, the king, or rather dynasty, becomes elective by the assembled states or diet. The laws by which the constitution was founded, and by which it is maintained, are the *Golden Bull* of their king Andreas II., dated in 1222, the magna charta of the nobles, whose privileges are principally regarded; and these have been confirmed by the peace of Vienna in 1606, and of Lintz in 1647. By these two treaties also the free exercise of their religion is secured to the Protestant sectaries. All these interests were further confirmed by the diet of Presburg in 1687, and by the inauguration diploma of Leopold II. in 1790. These various charters and acts of the states have merely secured to the privileged orders their ancient rights, but have left the peasantry, or, in other words, the great mass of the population, in the same state of subjection as before their promulgation.

The whole executive power is vested in the monarch. The king. He is the source of all titles and offices, and nominates to the higher ecclesiastical dignities, and to the benches of justice. He makes war and peace, can call together and dissolve the diet, and draw forth the whole military population. He receives the incomes of all vacant ecclesiastical benefices, and is heir to the property of such noble

Hungary. families as become extinct. The direction of the universities and colleges belongs to the king, but to the higher offices in them he can only appoint those who are of noble birth. The appeals to Rome upon the affairs of the Catholic church can only be made through him, and the royal authority has been constantly exercised to contract the number and to limit the causes of such applications. The king must be of the Catholic religion, and, at his inauguration, must swear to maintain the privileges and rights of the states. Notwithstanding this oath, by various circumstances, many arising out of the late long wars, the power and influence of the crown have been recently very much extended. Within six months after succeeding to the throne, the king must call together the states, and in their presence, in the open air, swear to maintain the privileges of the states, to leave the crown of St Stephen within the kingdom, and to allow the states to elect a king, upon failure of issue both male and female of the Emperor Charles VI. Joseph I. and Leopold I. During a minority, the palatine is guardian of the king and kingdom; but the monarch is capable of assuming the exercise of power when he has completed his fourteenth year.

States. The states of Hungary (*status et ordines*) consist of, 1st, the prelates, to which class belong the archbishops, bishops, abbots, and priors of the Greek and Catholic churches; 2d, the temporal barons and magnates, the high bailiffs of the provinces, and the counts and independent noble proprietors of estates; 3d, the nobility or knights, who do not attend personally, but choose two deputies for each county (*kömitat*) or province; and, 4th, the deputies from the royal cities. These members are said to be the representatives of Hungary, whilst the mass of the inhabitants, described in their law as *misera plebs contribuens*, have no connection with public affairs, except by paying taxes and furnishing recruits, from both which services the nobles and clergy are exempt. The purposes for which the states assemble are, the coronation of the king, the election of a palatine, the admission to or exclusion of nobles and cities from their rank, the granting subsidies and imposing taxes, and the framing new laws, or rather giving the assent of the assembly to such laws as the king may enact. By the constitution, the states should be convened every five years, or whenever any pressing circumstances require their assembling. Of these circumstances the king must judge, as the states are only convened by his summons. They meet in two chambers, or, as they are denominated, tables. The magnates' table is composed of the royal barons, the high hereditary officers of the kingdom, and the prelates, counts, and free landlords. The other chamber, called the states' table, consists of the deputies of the *kömitats*, or the suppleans of the nobles, the representatives of the royal free cities, and the persons appointed by such magnates as do not attend, who are called *ablegati absentium*. Though the states meet but in two chambers, yet they vote in four distinct bodies, and the absolute majority of those present determine each question in that body. If the king and three of these bodies determine any point, it becomes a law; and the fourth body has no suspending power. The king appears personally, or by his commissioner, and claims his prerogatives, and the states demand a confirmation of their rights. At the diet in 1792 there were present thirty bishops and other ecclesiastics, 178 counts, 131 hereditary officers and barons, sixteen law officers, thirty deputies of chapters, ninety-eight representatives of *kömitats*, 115 suppleans of absent magnates, and eighty-two deputies of cities. The sitting of the diet depends on the king, who has usually dismissed them as speedily as possible, out of regard to the general welfare of the people. During the meeting of the diet, all the courts of justice are shut up, and the

deputies of the free cities and of the *kömitats* are maintained at the time of the session at the expense of the people who send them, whilst the hereditary officers are kept by the crown. From these regulations, it is not to be wondered at that no anxiety for the meeting of the diet is manifested by any part of the kingdom. The king is well aware that no considerable sum beyond what is necessary for the expenses of the local government will often be granted by the diet; and when it is granted, as the whole is squeezed from the hard earnings of the peasants, it is collected with difficulty, and produces great oppression. As each *kömitat* has its own provincial diet, in which its affairs are discussed and regulated, and to which appeals from the courts of justice of the nobles (*herren stühle*) can be made, there is less occasion for the assembling of the general diet; and though, by the constitution, that body should meet every five years, yet, by a general acquiescence, its periodical convocation has been of late dispensed with. Whenever the diet is convoked, the summons of the monarch states the purposes for which they are to meet, in the orders to these subordinate diets; and no other proposition is or can be produced at the assembly. The local diets thus have an opportunity of discussing the propositions that are to be made to the general assembly, of determining what part to take, and of instructing their deputies in what manner to vote. No project of a new law originates with any of the states; and the sittings, though they were formerly very stormy, have of late been rather in compliance with ancient forms, and for purposes of display, than for any objects of great utility.

The principal officer of the kingdom is the palatine, Great officer who is the representative of the king, president of the diet, and of the supreme court of justice, dispenser of pardons, and mediator between the monarch and the states; his office continues only one year, but he may be re-appointed. Next to him is the judge of the supreme court, who is the president of the other two, and fills the office of palatine in the absence of that chief. The ban of the Croats follows next in rank, but has no official duties, unless at the coronation, when he carries the golden ball. The hereditary treasurer (*tavernicus*) has a seat in the supreme council, and is captain of the noble Hungarian body guards, who perform the palace duty.

The administration is conducted by the emperor, Chancery through the means of the Hungarian court of chancery court in Vienna, which is constituted of twenty-four state councillors, viz. three ecclesiastics, eleven magnates, and ten of knightly rank, all nominated by the monarch. This college exercises the superintendence over churches, schools, and charitable establishments, administers the funds of the universities and convents, and regulates the agriculture, the trade, and the feudal claims. This body has no original jurisdiction in matters of finance or of justice, but may be appealed to by the provincial diets or the local courts of law.

The primary courts of law are under the control of the nobles, who appoint the judges and direct the procedure. The oppression in such courts towards those not noble has long been excessive, and, though somewhat mitigated since the reign of Maria Theresa, bears still the deep impression of the worst periods of the feudal government. The whole system of law seems calculated only to secure and perpetuate to the nobility the enormous power they possess. The nobles are exempt from all taxes and imposts of every kind; the only duty they owe to the state is that of personal service in war. If a person not noble assaults one who is so, the legal punishment is death, which is, however, now usually commuted into the forfeiture of all his property, with the privilege of reclaiming it whenever he shall have the means of paying for it a stipulated portion of the value. If a peasant is injured by

Hungary. a noble to whose estate he is attached, he can have no redress, since he can only sue for it in the name and through the medium of the very person against whom he seeks it. The court in which his complaint is to be heard, not only consists of persons who are generally the dependents of the presumed offender, but moreover they can only be assembled at his summons. If a peasant is injured by any other noble, he cannot seek redress in his own person, but only through the intervention of him on whose estate he lives; and such is the contempt in which the peasantry are held, that even this privilege must very often be nugatory. The law of entail is another injurious privilege of the nobility, common, indeed, to all the feudal countries, which puts it out of their power to alienate the estates to the detriment of the successors. The effect of this is, that the possessions of the nobles are of enormous extent, embracing often whole *komitats*; and they are held upon tenures which convert them into the nature of principalities. The kingdom indeed partakes more of the nature of a great military confederation of subordinate chiefs, under one hereditary leader, than of any other known form of government. As all the descendants of noble families are themselves noble, whilst property remains almost unalienable, the poverty into which individuals belonging to distant branches of these families fall is in proportion to their number. In Hungary it is estimated that one person in twenty is of noble birth, all possessing the obnoxious privileges here noticed; many of them, though free from all taxes, sunk to a state of most abject poverty, and some of them filling the offices of peasants or servants. The inhabitants of the free cities are supposed to be about equal in numbers to the nobility; and the remainder of the people, according to these estimates, amounting to eighteen out of every twenty, can have no protection from the laws, nor any resource when injured or oppressed by their superiors. "The noble," says Dr Bright, "pays no tribute, and goes freely through the country, subject to neither tolls nor duties; but the peasant is subject to pay tribute; and although there may be some nominal restrictions to the services due from him to the government, it can safely be said that there is no limit in point of fact to the services which he is compelled to perform. Whatever public work is to be executed, not only when a road is to be prepared, but when new roads are to be made, or bridges built, the county meeting gives the order, and the peasant dares not refuse to execute it. All soldiers passing through the country are quartered exclusively upon the peasantry. They must provide them, without recompense, with bread, and furnish their horses with corn; and, whenever called upon, by an order termed a *forespan order*, they must provide the person bringing it with horses and means of conveyance. Such an order is always employed by the officers of government; and whoever can in any way plead public business as the cause of his journey, takes care to provide himself with it. In all levies of soldiers, the whole falls upon the peasant, and the choice is left to the arbitrary discretion of the lord and his servants."

From the same intelligent traveller we learn, what, indeed, the observations of all ages have taught, that whilst the nobles are hospitable, high spirited, well informed, and zealous to promote such institutions and projects as they think calculated to benefit their country, the peasantry are not only poor, but idle, dissolute, and dishonest. Perhaps in no other country of Europe is highway robbery so frequent; and, as a remarkable trait in the character both of the noble and the peasant, we are told that to every nobleman's house a prison is attached, in which are to be constantly found from ten to twenty miserable wretches, pinioned in a way which would not be tolerated in England towards the worst felons. The dungeons

in which they are immured are far more dismal and wretched than any prison in London can exhibit. The extreme viciousness of the Hungarian peasantry seems to have extinguished all feeling in the breasts of the higher nobles for their degraded state; and, instead of the wise policy which, by meliorating their condition, would improve their morals, they are left to endure those punishments which a different state of society would be likely to render unnecessary.

The military force and the financial affairs of this kingdom are so mixed up with those of the general administration, of the extensive expenditure of which they form a part, that it would be both difficult and tiresome to enter into the representation of them; and, besides, they vary so much from political events at different periods, that what would be correct at one time, would be defective at others.

Though Hungary has a national language, yet it is not generally spoken, nor supposed to be understood, by more than one third of the inhabitants. The only written language, until within a very late period, was the Latin, in which all their laws and public proceedings were promulgated; and it is still the most common medium of communication. It was not till the reign of Maria Theresa that any experiments were made to improve and polish the national language. When she formed her Hungarian guards, a number of young men of noble families were drawn to Vienna, where they had means of knowing the estimation in which the cultivation of learning was held in the more civilized parts of Europe, and were taught to feel the inferiority of their native country, in not possessing a national language and national literature. This stimulated them to exertions to remove the stigma, and gave birth to most of those writings of which the Hungarians boast. The cultivation of the vernacular tongue was further promoted by the attempt of the Emperor Joseph to introduce the German tongue into their public transactions; this roused the patriotic spirit of the Hungarians, and the effect of that spirit became visible in the extension and improvement of the native language. Since that period the study of this language has produced some good poets, who have generally dedicated their powers to the praises of their country, and to recording the merits of its most distinguished natives. As the subjects of their poetry are very little known beyond the limits of the country, we must trust to the reports of those who feel the most interest in the subjects of which it principally treats, and who, for that reason, may not be the most unbiassed critics.

The principal cities, and their population in 1834, were as follows:—

Pesth, with Buda or Ofen.....	95,000
Debreczin.....	46,000
Presburg.....	36,000
Theresienstadt.....	34,000
Szegedem.....	34,000
Misklaz.....	28,500
Nyir-Egybaza.....	20,000
Stuhlweisenburg.....	20,000
Komorn.....	18,500
Schemnitz.....	17,500
Raab.....	17,500
Grosswardein.....	17,000
Mako.....	17,000
Gyongyos.....	15,500
Boszormeny.....	15,000
Szathmar.....	14,500
Gyula.....	14,500
Fileghyaza.....	14,500
Kaschau.....	14,000
Odenburg.....	13,500

Hungary.

Esomgrad.....	13,000
Temeswar.....	12,500
Gran.....	12,000
Szolnok.....	12,000
Pecs.....	11,500
Nagy-Karoly.....	11,500
Agram.....	11,500
Eszeck.....	11,500
Veszprim.....	10,500

History.

The early history of this important kingdom is highly interesting, both as marking the tribes from Asia who established and finally spread themselves over the whole of Europe, and as illustrating the origin of that feudal system which ultimately produced the present state of civilization.

The inhabitants of this country are not to be confounded with those tribes called the Hunns, whom we are accustomed to consider as their progenitors, on account of the similarity of the names; a similarity which does not exist in their native language, but which has been given to them by foreigners.

The Hunns were, according to De Guignes's history of that people, a powerful but uneducated nation of Tartary, against whose incursions the great wall of China was constructed, about 209 years before the Christian era. In the time of Augustus they inhabited the shores of the Caspian Sea, from whence, being pressed westward by other tribes, they became the scourge of Europe, and gradually attained great power, which was at length wielded by Attila. But after his death in the year 453, the nation fell to ruin, though some of them were long to be found on the north of the Danube, and some on the shores of the Palus Mæotis, or Sea of Azoph, till at length their name totally disappeared.

The present people of Hungary, or, in their own language, the Magyars, made their first appearance in Europe in the year 894 of our era, having advanced from the southern shores of the Black Sea, under a leader named Almus. By himself and his son Arpad, the Bulgarians, the Slawen, the Wallachians, the Germans, Croatians, and Dalmatians, who were settled there, were either subdued, driven out, or extirpated, by the year 900. The land was at first divided amongst the heads of the several families; but in a short time the power was conceded to the chief, who assumed the title of duke, and the right of granting land to reward any deed of warlike merit.

The Magyars were no sooner in possession of the rich country, than their interference was requested by their rival neighbours for aid against each other; a request which, by such warriors, excited by their recent conquests, was not received with hesitation or delay. They soon extended their power in every direction by collecting a large and active body of cavalry, which was not to be resisted by any forces that could be collected to oppose them. They soon spread themselves, and in a few years were feelingly known to the north in Hamburg and Bremen, to the west in France, to the south in Otranto, and to the east at Constantinople. In the year 933 they first came, under their duke Zwenibold, in contact with the Emperor of Germany, Henry I., whom they defeated in a great battle near Merseburg, on the river Saal, in Saxony. They penetrated into Franconia, but there, at Drommling on the Ohr, they met a severe repulse. In a subsequent incursion into Bavaria, after some early successes, they experienced a sanguinary defeat on the river Lech, from the German king Otho I., in the year 955. The continued attacks of the more civilized people of the west drove them in the course of a few years wholly out of Germany. As they became settled in their country, they gradually adopted more tranquil habits. They had learned something of the simplest arts of agriculture in the countries which they had invaded; and the numerous prisoners whom they

VOL. XI.

had brought with them were made to cultivate the land, and to practise the simplest mechanic arts. This progress continued under one of their dukes, Taksony, who used his power to convince his followers that there were other ways of extending their authority than by warlike expeditions. Under Geysa or Geesa, the great-grandson of Arpad, who married Carolta, a Christian princess, an important event took place. He was celebrated for his hospitality, and invited foreigners to settle in his country; and, amongst others, he, at the instigation of his wife, called in some of the priests. By gradual steps their religion was also introduced; and in the year 973 Geysa and some thousands of his chief people embraced the Christian faith, and were admitted into the bosom of the church by a public baptism.

By the aid of the Bishop Pellegrin of Passau, and of the Bishop of Prague, Adelbert, he strove to overcome the reluctance felt by the greater part of his people to adopt the new religion. This task was left to his son and successor Stephen, who for his success in conversion, and for his extirpation of heathenism, was canonized after his death; and in his lifetime was presented by Pope Silvester II. with a crown, the remains of which are still preserved, a patriarchal crucifix, and the title of apostolic king. The throne of Hungary was thus founded in the year 1000, and was surrounded by an aristocracy and an hierarchy calculated to support it. The king endowed ten rich bishoprics, and divided his dominion into seventy-two countships (*gespanschafts*), over each of which was placed a chief, with full civil and military authority, in the exercise of which he was alone accountable to the monarch himself.

These nobles and prelates were formed into a senate, and, in conjunction with them, the king framed a constitution, which has in its groundwork existed to the present time. In the year 1002, the chief of Siebenburgen, named Gyula, remained in heathenism, and had contracted alliances with the yet unconverted subjects of Stephen. He was attacked and subdued, and his dominions added to the kingdom of Hungary. Stephen married a sister of the Emperor of Germany, Henry II.; and being thus connected, was universally acknowledged as a king, and the succession declared to be hereditary in his descendants. But he died leaving no issue, and for several years the kingdom was in a state of anarchy, some parts of it acknowledging one sovereign, and others a different one, and contending with greater violence, because during the contests the remains of heathenism still continued, and its adherents formed a powerful party. They were, however, suppressed by one of the race of their ancient kings, Ladislaus, who, in 1077, united in himself the supreme power, and added to its strength by conquering and enclosing within his dominions the provinces of Croatia and Sclavonia. In this course he was followed by his son Solaman, who increased his dominion in 1095 by the subjugation of Dalmatia and Bosnia. A daughter of this King Ladislaus, named Sophia, married a prince of the house of Hapsburg, Dukes of Austria; and it is through this lady that the present occupiers of the imperial throne trace their pedigree up to Arpad, one of the earliest founders of the kingdom of Hungary. Both these kings were of great benefit to the country, by the wise laws they introduced, and the internal regulations which they established. Under them and their successors colonists were introduced both from Flanders and from Alsace, and many Germans from various circles. These were mostly established in Siebenburgen; but everywhere they communicated better practices in cultivation, and in the various arts of civilized life. Belas II. one of their kings, who had been educated at the court of Byzantium, induced the Hungarians, who had been accustomed to pass the greater part of their time under tents, to build perma-

42

Hungary. nent houses, and to erect towns and cities, which were endowed with privileges; and, in imitation of what he had seen in the Greek capital, he established a court, with great offices of state, to give dignity and power to his throne.

In the year 1186, this Belas married Margaretta, daughter of Henry king of France, the widow of the son of Henry II. king of England. She brought with her to the Hungarian court some degree of French elegance, and induced several of the younger nobles to repair to Paris for their improvement in learning and in military exercises.

Under his successor Andreas II. the power of the great nobles was exercised to compel that weak prince to extend and strengthen their influence, and they extorted from him a treaty in their favour in 1223, which has been denominated the Golden Bull.

Belas IV. was anxious to make some alterations, and before he could adopt and prepare them, was interrupted by incursions from the Mongul tribes, who for a time spread devastation over a great part of the country. They were, however, ultimately repulsed, and the king restored to his authority. He then drew to Hungary a vast number of German colonists, which improved the state of civilization; and he founded several cities, fortified them, and conferred extensive privileges upon the burghers, who thus became in process of time a counterbalance to the power of the nobles. In 1241 his son Stephen was crowned as co-regent with the father. This gave rise to contests between the two sovereigns, by which the royal power suffered severely. Andreas IV. succeeded to the throne, and dying in 1301, the male line of the Arpad race became extinct. The female line gave the crown to the family of Anjou, under whose princes Hungary attained its highest pitch of prosperity and power. Louis, the first of the new dynasty, was the son of Robert, originally the Norman, who ruled in Sicily, and had married the Princess Elizabeth of Poland. Under this prince the thrones of Hungary and Poland were united, he having obtained the first in 1342, and the second on the death of his uncle in 1370, and became the greatest power in Europe, extending from the Adriatic to the Baltic Seas. The several public institutions were improved, the better cultivation of the soil was promoted, the administration of justice established, and cases which had before been decided by wager of battle determined by judges. This prince also endeavoured to introduce learning, and with that view established a university at Ofen, and a free school in Fünfkirchen. He relieved commerce from many burdensome imposts, and, according to the policy of the age, sought to preserve his subjects from heavy usury, by banishing all the Jews from his dominions.

Louis died without male issue, and his two daughters, Hedwig and Maria, divided his dominions. The former ascended the throne of Poland, and the latter that of Hungary. Maria married Siegmund, the son of the Emperor Charles IV. who, with his wife, was crowned in 1387.

Siegmund's reign was distinguished by his contests with the nobles, who held him a prisoner at one period, during which Red Russia was seized upon by the Poles, a portion of Dalmatia by the Venetian republic, and some parts of the eastern frontier by the Turks, who since their appearance began to annoy Hungary, which thus became the bulwark of Europe against the infidels. In this reign also commenced the religious wars of the Hussites. Siegmund left only a daughter, Elizabeth, who married the Archduke Albert of Austria; the latter died in 1436, leaving her pregnant with a son, Ladislaus, who bore the surname of Posthumus. He was declared king, and the government conducted by John de Hunoyed, who, under the title of stadtholder, saved Belgrade, and indeed Hungary, from the Turks. On

attaining his majority in 1456, Ladislaus was dissatisfied with his great benefactor, and most unjustly persecuted his family. The eldest of the Hunyades was put to death, and the youngest, named Mathias, distinguished by the surname of Corvinus, was imprisoned. Ladislaus died in 1457, without issue, when Mathias seized on the vacant throne, and was confirmed in it by an assembly of the states collected at Pesth, in spite of the strong pretensions of the Emperor Frederick III.

Under the new reign great vigour was displayed. Mathias, though an elected king, knew how to emancipate himself from the dominion of those who had chosen him, as well as to oppose with success all external enemies. He recovered the provinces which had been lost by his predecessors, and by hostilities gained others. He drove the Turks out of Bosnia. In a war with George, king of Bohemia, he seized Moravia, Silesia, and Lausatia, and deprived the emperor himself of some of his provinces, especially of the land below the Ens. His active spirit enlivened commerce, improved agriculture, and formed excellent institutions for judicial and fiscal administration. To all his other watchful precautions he added that of maintaining a constant regularly-armed force.

This flourishing state of Hungary vanished speedily after the death of Mathias, when, in 1490, Wladislaus of Bohemia, the grandson of Albert and Elizabeth, was raised by the states to the throne. He had from the first powerful parties to contend with amongst the nobles, and at length a kind of servile war to engage in. The peasants rose in every part at the instigation of some amongst the nobles, and the insurrection was not quelled till 1512, and then only with the loss of the lives of 40,000 of these miserable people, and the condemnation of others to the condition of slaves.

During this reign Count John Zapolya raised a powerful faction in the assembly of the states, by proposing a law in 1505, to revive an ancient enactment, that in case of the death of a king without issue, the states should elect to the throne none but a native of Hungary. This attempt was frustrated by a treaty entered into with the emperor, and after the death of the king his son Ludwig succeeded him; but in an unhappy battle with the Turks at Mohacz in 1526, Ludwig fell, and Zapolya was declared by his party the successor to the throne. A larger party of the states, however, declared in favour of Ferdinand, who had married Anna, the daughter of Wladislaus. A civil war ensued, which drove Zapolya from the station he had assumed, and, as a denounced traitor, he fled to the Turks, by whose assistance he was enabled to make a predatory incursion, which was repressed after some time; and though Ferdinand, now become emperor, was fairly established, Zapolya was restored to his estates and his dignities, and the peasants who had lost their privileges by the insurrection of 1512 were re-instated in the rights they had before possessed. The want of success in the attempts of Zapolya has been attributed to his avowed persecution of heretics, by which the Protestants, who had become numerous, were induced to strengthen the party of the house of Austria, who, after being safely placed on the throne, were far from acting in conformity with the views of those who maintained that they had turned the scale in favour of that family.

At length, at an assembly of the states held in 1547, the hereditary right of the house of Austria to the throne of Hungary was solemnly established; and from that period the history of Hungary is included in that of the imperial house which long gave a succession of emperors to Germany, and has at length assumed the title of Emperors of Austria.

Hungary-Water. HUNGARY-Water, a distilled water prepared from the tops of flowers of rosemary, and so denominated from a queen of Hungary, for whose use it was first made.

HUNGER. an uneasy sensation occasioned by long abstinence from food when the body is in a healthy state. The following useful observations upon hunger or famine are extracted from a paper by Dr Percival in the second volume of the *Manchester Transactions*.

In a state of famine, life may be protracted, with less pain and misery, by means of a moderate allowance of water. For the acrimony and putrefaction of the humours are obviated by such dilution; the small vessels are kept permeable; and the lungs are furnished with that moisture which is essential to the performance of their functions. Fontanus, a writer of respectable authority in the estimation of Morgagni, relates the history of a woman who obstinately refused to take any sustenance, except twice, during the space of fifty days, at the end of which period she died. But he adds, that she used water by way of drink, though in small quantity. Redi, who made many experiments (cruel and unjustifiable in our opinion) to ascertain the effects of fasting on fowls, observed that none were able to support life beyond the ninth day to whom drink was denied, whereas one indulged with water lived more than twenty days.

Hippocrates has observed, that children are more affected by abstinence than young persons, these more than the middle-aged, and the middle-aged more than old men. The power to endure famine, however, must depend no less upon the state of health and strength than upon the age of the sufferer. There are also particular constitutions which do not suffer much pain from the calls of hunger. Dr Percival was informed by a young physician from Geneva, that when he was a student at Montpellier he fasted three nights and four days, with no other refreshment than a pint of water daily. His hunger was keen, but never painful, during the first and second days of his abstinence; and the two following days he perceived only a faintness when he attempted either bodily or mental exertion. A sense of coldness was diffused over his whole frame, but more particularly affected the extremities. His mind was in a very unusual state of pusillanimity; and he experienced a great tendency to tears whenever he recollected the circumstance which had been the occasion of his fasting. During the whole period, the alvine excretions were suppressed, but not those by the kidneys; and at the close of it his skin became tinged with a shade of yellow. The first food he took was veal broth, which had something of an intoxicating effect, producing a glow of warmth, and raising his spirits, so as to render him ashamed of his despondency. Perhaps, in the case of Sextius Baculus, as recorded in the Commentaries of Cæsar (lib. vi.), the extraordinary courage and prowess which he suddenly exerted might be aided by the exhilarating effect of sustenance, which, under such circumstances, it is probable he would no longer decline. The fact, however, evinces that neither his sickness nor the sensations of hunger had been so violent as much to impair his strength of body or vigour of mind. Pomponius Atticus, the celebrated friend of Cicero, who put a voluntary end to his life in the seventy-seventh year of his age by refusing all food, appears to have experienced ease from his disorder, rather than any acute sufferings, by famine. "Sic cum biduo cibo se abstinuisset, subito febris decessit, leviorque morbus esse cepit; tamen propositum nihilo secius peregit. Itaque die quinto, postquam id consilium inierat, decessit."¹ From the former circumstance, it has been conjectured that he did not wholly deny himself the use of water, or of some other diluent. But

though a few examples of this kind may be produced, we have the evidence of numerous melancholy facts to show that the pressure of want is agonizing to the human frame. "I have talked," says an ingenious writer, "with a captain of a ship who was one of six that endured it in its extremity, and who was the only person that had not lost his senses when they received accidental relief. He assured me his pains at first were so great as to be often tempted to eat a part of one of the men who died, and which the rest of his crew actually for some time lived upon. He said that, during the continuance of this paroxysm, he found his pains insupportable, and was desirous at one time of anticipating that death which he thought inevitable. But his pains, he said, gradually decreased after the sixth day (for they had water in the ship, which kept them alive so long), and then he was in a state rather of languor than desire; nor did he much wish for food, except when he saw others eating; and that for a while revived his appetite, though with diminished importunity. The latter part of the time, when his health was almost destroyed, a thousand strange images rose upon his mind, and every one of his senses began to bring him wrong information. The most fragrant perfumes appeared to him to have a fetid smell; and every thing he looked at took a greenish hue, and sometimes a yellow. When he was presented with food by the ship's company that took him and his men up, four of whom died shortly after, he could not help looking upon it with loathing instead of desire; and it was not till after four days that his stomach was brought to its natural tone, when the violence of his appetite returned with a sort of canine eagerness."

To those who by their occupations are exposed to such dreadful calamities, it is of serious importance to be instructed in the means of alleviating them. The American Indians are said to use a composition of the juice of tobacco, and the shells of snails, cockles, and oysters calcined, whenever they undertake a long journey, and are likely to be destitute of provisions. It is probable the shells are not burned into quicklime, but only so as to destroy their tenacity, and to render them fit for levigation. The mass is dried, and formed into pills of a proper size to be held between the gum and lip, which, being gradually dissolved and swallowed, deaden the sensations both of hunger and of thirst. Tobacco, by its narcotic quality, seems well adapted to counteract the uneasy impressions which the gastric juice makes on the nerves of the stomach when it is empty; and the combination of testaceous powder with it may tend to correct the secretion that is supposed to be the chief agent in digestion, and which, if not acid, is always united with acidity. Certain at least it is, that their operation is both grateful and salutary; for we find the luxurious inhabitants of the East Indies mix them with the betel-nut, to the chewing of which they are universally and immoderately addicted. Perhaps such absorbents may be usefully applied, both to divide the doses and to moderate the virulence of the tobacco. For, in the internal exhibition of this plant, much caution is required, as it produces sickness, vertigo, cold clammy sweats, and a train of other formidable symptoms, when taken in too large a quantity. During the time of war, the impressed sailors frequently bring on these maladies that they may be admitted into the hospitals, and released from servitude. It would be an easy and safe experiment to ascertain the efficacy and to adjust the ingredients of the Indian composition mentioned; and there is reason to believe that the trial would be in some degree successful; for it is known that smoking tobacco gives relief to those habitual pains of the stomach which appear to arise from the irritation of

¹ Corp. Nepos, in Vita Pompon. Attici.

² Dr Goldsmith's *History of the Earth*, vol. ii. p. 126.

Hunger. the gastric secretion. The like effect is sometimes produced by increasing the flow of saliva, and swallowing what is thus discharged. And Dr Percival has related the case of a gentleman who used to masticate, many hours daily, a piece of lead, which being neither hard, friable, nor offensive to the palate, suited his purpose, as he thought, better than any other substance. He continued the custom for many years, deriving great ease from it, and suffering no sensible injury from the poisonous quality of the metal. On mentioning this fact to a navy surgeon, the doctor was told that the sailors, when in hot climates, are wont to mitigate thirst by rolling a bullet in their mouths. A more innocent mean, the doctor observes, might be devised; but the efficacy of this evinces, that the salivary glands are for a while capable of furnishing a substitute for drink. When a scarcity of water occurs at sea, Dr Franklin has advised that the mariners should bathe themselves in tubs of salt water. For, in pursuing the amusement of swimming, he observed, that however thirsty he was before immersion, he never continued so afterwards; and that, though he soaked himself several hours in the day, and several days successively, in salt water, he perceived not, in consequence of it, the least taste of saltiness in his mouth. He also further suggests, that the same good effect might perhaps be derived from dipping the sailors' apparel in the sea, and expresses a confidence that no danger of catching cold would ensue.

To prevent the calamity of famine at sea, it has been proposed by Dr Lind, that the powder of salep should constitute part of the provisions of every ship's company. This powder and portable soup, dissolved in boiling water, form a rich thick jelly; and an ounce of each of these articles furnishes one day's subsistence to a healthy full-grown man. Indeed, from Dr Percival's experiments it appears, that salep contains more nutritious matter, in proportion to its bulk, than any other vegetable production now used as food. It has the property also of concealing the nauseous taste of salt water; and consequently may be of great advantage at sea, when the stock of fresh water is so far consumed that the mariners are put upon short allowance. By the same mucilaginous quality, it covers the offensiveness, and even in some measure corrects the acrimony, of salted and putrescent meats. But, as a preservative against hunger, salep would be most efficaciously combined with an equal weight of beef suet. By swallowing little balls of this lubricating compound at proper intervals, the coats of the stomach would be defended from irritation; and as oils and mucilages are highly nutritive, of slow digestion, and indisposed to pass off by perspiration, they are peculiarly well adapted to support life in small quantities. This composition is superior in simplicity, and perhaps equal in efficacy, to the following one, so much extolled by Avicenna the celebrated Arabian physician, to whom we are indebted for the introduction of rhubarb, cassia, tamarinds, and senna, into the materia medica. "Take sweet almonds and beef suet, of each one pound; of the oil of violets two ounces; and of the roots of marshmallows one ounce; bray these ingredients together in a mortar, and form the mass into boluses about the size of a common nut." Animal fat is singularly powerful in assuaging the most acute sensations of thirst, as appears from the narrative of the sufferings experienced by those who were confined in the black hole at Calcutta. A hundred and forty-six persons, exhausted by fatigue and military duty, were there thrust together into a chamber of eighteen cubic feet, having only two windows, strongly barred with iron, from which, in a close sultry night, and in such a climate as that of Bengal, little or no circulation of fresh air could be enjoyed. In a few

minutes these unhappy wretches fell into such a profuse perspiration, that an idea can hardly be formed of it; and this again was succeeded by a raging thirst, which increased in proportion as the body was drained of its moisture. Water, water, became the universal cry; and an old soldier on the outside, through pity, furnished them with a few skinfuls of it. But these scanty supplies, like sprinklings thrown on the fire, served only to feed and increase the flame. From this experience of its effects, Mr Holwell, their chief, determined to drink no more, and kept his mouth moist by sucking the perspiration out of his shirt sleeves, and catching the drops as they fell from his head and face. "You cannot imagine," says he, "how unhappy I was if any of them escaped me." He came into the prison without his coat, the season being too hot to bear it; and one of his miserable companions, observing the expedient he had hit upon of allaying his thirst, robbed him from time to time of a considerable part of his store. This plunderer, whom he found to be a young gentleman in the service of the East India Company, afterwards acknowledged that he owed his life to the many comfortable draughts which he derived from him. Before Mr Holwell adopted this mode of relief, he had attempted, in an ungovernable fit of thirst, to drink his own urine; but it was so intensely bitter that a second taste could not be endured; whereas, he assures us, no Bristol water could be more soft and pleasant than his perspiration. And this, we may presume, consisted chiefly of animal fat, melted by excessive heat, and exuding from the cellular membrane through the pores of the skin.

Persons who have been accustomed to animal food are soon reduced when supplied only with the farinacea. Several years ago, to determine the comparative nutritive powers of different substances, an ingenious young physician, as Dr Percival informs us, made a variety of experiments on himself, to which he unfortunately fell a sacrifice. He lived a month upon bread and water; and under this regimen of diet he every day diminished much in his weight.

In attempts to recover those who have suffered under the calamities of famine, great circumspection is required. Warmth, cordials, and food, are the means to be employed; and it is evident that these may prove too powerful in their operation, if not administered with caution and judgment. For the body, by long fasting, is reduced to a state of more than infantile debility; the minuter vessels of the brain, and of the other organs, collapse for want of fluids to distend them; the stomach and intestines shrink in their capacity; and the heart languidly vibrates, having scarcely sufficient energy to propel the scanty current of blood. Under such circumstances, a proper application of heat seems an essential measure, and may be effected by placing on each side a healthy man in contact with the patient. Pediluvia or fomentations may also be used with advantage. The temperature of these should be lower than that of the human body, and gradually increased according to the effects of their stimulus. New milk, weak broth, or water gruel, ought to be employed both for the one and the other; as nutriment may be conveyed into the system this way, by passages probably the most pervious in a state of fasting, if not too long protracted. "A lad at Newmarket¹ having been almost starved in order that he might be reduced to a proper weight for riding a match, was weighed at nine o'clock in the morning, and again at ten; and he was found to have gained near thirty ounces in weight in the course of an hour, though he had only drank half a glass of wine in the interval. The wine probably stimulated the action of the nervous system, and incited nature, exhausted by abstinence, to open the absorbent

¹ Watson's *Chemical Essays*, vol. iii. p. 101.

Hunger-
ford
||
Hunns.

pores of the whole body, in order to suck in some nourishment from the air." But no such absorption as this can be expected in a state of extreme weakness and emaciation gradually induced, because the lymphatics must partake of the general want of tone and energy. And notwithstanding the salutary effects of wine in the case of the jockey, who, it is likely, had been reduced by sweating as well as by abstinence, such a stimulant might prove dangerous, and even fatal, in other cases. It appears safer to advise the exhibition of cordials in very small doses, and at first considerably diluted. Slender wine whey will perhaps best answer this purpose, and afford, at the same time, an easy and pleasant nourishment. When the stomach has been a little strengthened, an egg may be mixed with the whey, or administered under some other agreeable form. The yolk of one was, to Cornaro, sufficient for a meal; and the narrative of this noble Venetian, in whom a fever was excited by the addition of only two ounces of food to his daily allowance, shows that the return to a full diet should be conducted with great caution, and by very slow gradations.

HUNGERFORD, a market-town of the county of Wilts, in the hundred of Kentbury, but a part of it is within the county of Berks. It is sixty-eight miles from London, on the road to Bath, and is watered by the river Kennet. It has some trade by the Kennet and Avon Canal, both with London and with Bristol. There is a market, which is held on Wednesday. The church is a very ancient building.

HUNINGEN, a town of the arrondissement of Altkirch, in the department of the Upper Rhine, in France. It is on the Rhine, and was strongly fortified till 1815; and being within two miles of the Swiss frontier, was deemed of military importance, as commanding the river. It contains about 1000 inhabitants. Long. 7. 30. E. Lat. 47. 42. N.

HUNNS, a fierce and savage nation, who formerly inhabited that part of Sarmatia bordering on the Palus Mæotis and the Tanais, the ancient boundary between Europe and Asia. Their country, as described by Procopius, lay north of Mount Caucasus, which, extending from the Euxine to the Caspian Seas, separates Asiatic Sarmatia from Colchis, Iberia, and Albania, and occupies the isthmus between the two seas above mentioned. Here they resided, unknown to other nations, and themselves ignorant of other countries, till the year 376. At this time, a hind pursued by the hunters, or, according to some authors, an ox stung by a gad-fly, having passed the marsh, was followed by some Hunns to the other side, where they discovered a country much more agreeable than their own. On their return, having acquainted their countrymen with what they had seen, the whole nation passed the marsh, and having attacked the Alans, who dwelt on the banks of the Tanais, almost exterminated them. They next fell upon the Ostrogoths, whom they drove out of their country, and forced to retire to the plains between the Borysthenes and the Tanais, now known by the name of Podolia. They next attacked the Visigoths, whom they obliged to shelter themselves in the most mountainous parts of their country; and at last the Gothic nations, finding it impossible to withstand such an inundation of barbarians, obtained leave from the Emperor Valens to settle in Thrace.

The Hunns thus became in 376 masters of all the country between the Tanais and Danube, where they continued quietly till the year 388, when great numbers of them were taken into the pay of Theodosius I.; but, in the mean time, a party of them, called the Nephthalite or White Hunns, who had continued in Asia, overran all Mesopotamia, and even laid siege to Edessa, where they were repulsed with great slaughter by the Romans. The European Hunns frequently passed the Danube, and committed the greatest ravages in the western empire; some-

times they also fell upon the eastern provinces, where they put all to fire and sword. They were often defeated and repulsed by the Romans; but the empire was now too weak to subdue or prevent them from making excursions; so that they continued to make encroachments, and became every day more formidable than before. In 411, the Hunns, under Attila, threatened the western empire with total destruction. This monarch, having made himself master of all the northern countries from the confines of Persia to the banks of the Rhine, invaded Mæsia, Thrace, and Illyricum, and made such progress, that the emperor not thinking himself safe at Constantinople, withdrew into Asia. Attila then broke into Gaul, where he took and destroyed several cities, and massacred the inhabitants with the greatest cruelty. At last he was driven out with great slaughter by Ætius the Roman general, and Theodoric king of the Goths, and could never afterwards make any great progress. About the year 452 or 453 Attila died, and his kingdom was immediately split into a number of small ones by his numerous children, who waged perpetual war with one another. The Hunns then ceased to be formidable, and became daily less able to cope with the other barbarous nations whom Attila had kept in subjection. Still, however, their dominion was considerable; and in the time of Charles the Great they were masters of Transylvania, Wallachia, Servia, Carniola, Carinthia, and the greater part of Austria, together with Bosnia, Sclavonia, and that part of Hungary which is situated beyond the Danube. In the year 776, whilst Charles was in Saxony, two princes of the Hunns, Caganus and Jugunus, sent ambassadors to him, desiring his friendship and alliance. Charles received them with extraordinary marks of friendship, and readily complied with their request. However, they not long afterwards entered into an alliance with Taffila duke of Bavaria, who had revolted from Charles, and raised great disturbances in Germany. Charles dissembled his resentment till he had entirely reduced Bavaria, when he resolved to revenge himself on the Hunns for the underhand succours they had given to his enemy. Accordingly, he ordered levies to be made throughout his dominions, and having assembled a very numerous army, divided it into two bodies, one of which he commanded himself, and the other he committed to the care of his generals. The two armies entered the kingdom of the Hunns at different places, ravaged their country far and wide, burned their villages, and took all their strongholds. This he continued for eight years, till the people were almost totally extirpated; nor did the Hunns ever afterwards recover the blow, or appear as a distinct nation.

There were two different nations which went by the name of Hunns; the Nephthalite or White Hunns, and the Sarmatian or Scythian Hunns. The former inhabited a rich country bordering to the north on Persia, and at a great distance from the Sarmatian or Scythian Hunns, with whom they had no intercourse, nor the least resemblance either in their persons or manners. They were a powerful nation, and often served against the Romans in the Persian armies; but in the reign of the Emperor Zeno, being provoked by Perozes king of Persia laying claim to part of their country, they defeated the Persians in two pitched battles, slew their king, overran all Persia, and held it in subjection for the space of two years, obliging Cabades, the son and successor of Perozes, to pay them an annual tribute. These Hunns, called by the writers of those times the White Hunns, did not wander, like the others, from place to place; but, contented with their own country, which supplied them with all necessaries, they lived under a regular government, subject to one prince, and seldom made inroads, unless provoked, either into the Persian or Roman territories. They lived ac-

Hunns.

Hunter. cording to their own laws, and dealt uprightly with one another, as well as with the neighbouring tribes. Each of their great men used to choose twenty or more companions to enjoy with him his wealth, and partake of all his diversions; but, upon his decease, they were all buried with him in the same grave. This custom savours of extreme barbarity; but in every other respect the Nephthalite were a less ferocious race than the Scythian Hunns, who, breaking into the empire, filled most of the provinces of Europe with blood and slaughter.

The latter were, according to Ammianus Marcellinus, a savage race, exceeding in cruelty the most barbarous nations. According to Jornandes, they began to practise their cruelty upon their own children the very first day they came into the world, cutting and mangling the cheeks of their males, to prevent the growth of hair, which, contrary to the sentiments of other nations, they must have looked upon as unbecoming and unmanly. They had, perhaps, in this practice another view, which Jornandes seems to insinuate elsewhere, namely, to strike terror into the enemy with their countenances thus deformed and covered with scars. They had no other food but roots and raw meat, being quite unacquainted with the use of fire; they had no houses at all, not even huts; they lived constantly exposed to the air, in the woods and on the mountains, where, from their infancy, they were inured to hunger, thirst, and all manner of hardships; and they had such an aversion to houses, which they called the sepulchres of the living, that, when they migrated into other countries, they could hardly be prevailed upon to come within the walls of any house, not thinking themselves safe when shut up and covered. They used even to eat and sleep on horseback, scarcely ever dismounting; a circumstance which, in all likelihood, induced Zosimus to assert that the Hunns could not walk. They covered their nakedness with goats' skins, or the skins of a sort of mice sewed together. Day and night were indifferent to them, as to buying, selling, eating, and drinking. They had no law, nor any kind of religion, but complied with their inclinations, whenever these prompted them, without the least restraint, or distinction between good and evil. In war they began the battle with great fury and a hideous noise; but if they met with a vigorous opposition, their fury began to abate after the first onset; and when once put into disorder, they never rallied, but fled in the utmost confusion. They were quite unacquainted with the art of besieging towns; and authors observe, that they seldom or never attacked the enemy's camp. They were a faithless nation, and thought themselves no longer bound by the most solemn treaties than they found their advantage in observing these. Hence we often find them, upon the least prospect of obtaining more advantageous conditions, breaking into the Roman empire, in defiance of the most solemn oaths and engagements. Several corps of Hunns, after their coming into Europe, served in the Roman armies against the Goths and other nations; nay, they were ready for hire to fight against each other, being blind to every consideration excepting that of interest. For further information on this subject, the reader is referred to the learned and profound work of De Guignes, of which some account is given in the biographical notice of the author. See article GUIGNES.

HUNTER, a name given to a horse qualified to carry a person in the chase. See HORSE.

HUNTER, Dr William, a celebrated anatomist and physician, was born on the 23d of May 1718, at Kilbride, in the county of Lanark, in Scotland. He was the seventh child of John and Agnes Hunter, who resided on a small estate in that parish called Long Calderwood, which had been long in the possession of his family. His great grandfather by his father's side was a younger son of Hunter of Hunterston, chief of the family of that name. At the age

of fourteen his father sent him to the College of Glasgow. In this seminary he passed five years, and by his prudent behaviour and diligence acquired the esteem of the professors, and the reputation of being a good scholar. His father had designed him for the church; but the idea of subscribing to articles of faith was so repugnant to the liberal mode of thinking which he had already adopted, that he felt an insuperable aversion to theological pursuits. In this state of mind he happened to become acquainted with Dr Cullen, afterwards so celebrated as professor at Edinburgh, who was then just established in practice at Hamilton under the patronage of the Duke of Hamilton. Dr Cullen's conversation soon determined him to lay aside all thoughts of the church, and to devote himself to the profession of physic. His father's consent having been previously obtained, Mr Hunter in 1737 went to reside with Dr Cullen. In the family of this excellent friend and preceptor he passed nearly three years; and these, as he was often heard to acknowledge, were the happiest of his life. It was then agreed that he should go to prosecute his medical studies at Edinburgh and London, and afterwards return to settle at Hamilton in partnership with Dr Cullen. He accordingly set out for Edinburgh in November 1740, and continued there till the following spring, attending the lectures of the medical professors, and amongst others those of Dr Alexander Monro, who, many years afterwards, in allusion to this circumstance, styled himself his old master.

Mr Hunter arrived in London in the summer of 1741, and took up his residence at the house of Dr Smellie, who was at that time an apothecary in Pall Mall. He brought with him a letter of recommendation to Dr James Douglas, from Mr Foulis, printer in Glasgow, who had been useful to the doctor in collecting for him different editions of Horace. Dr Douglas was then intent on a great anatomical work on the bones, which he did not live to complete, and was looking out for a young man of abilities and industry whom he might employ as a dissector. This induced him to pay particular attention to Mr Hunter; and finding him acute and sensible, he desired him to make him another visit. A second conversation confirmed the doctor in the good opinion he had formed of Mr Hunter; and without any further hesitation he invited him into his family to assist in his dissections, and to superintend the education of his son. Mr Hunter having accepted Dr Douglas's invitation, was by his friendly assistance enabled to enter himself as a surgeon's pupil at St George's Hospital under Mr James Wilkie, and as a dissecting pupil under Dr Frank Nichols, who at that time taught anatomy with considerable reputation. He likewise attended a course of lectures on experimental philosophy delivered by Dr Desaguliers. Of these means of improvement he did not fail to make a proper use. He soon became expert in dissection, and Dr Douglas was at the expense of having several of his preparations engraved. But before many months had elapsed, he had the misfortune to lose this excellent friend. The death of Dr Douglas, however, made no change in the situation of our author. He continued to reside with the doctor's family, and to pursue his studies with the same diligence as before.

In 1743 he communicated to the Royal Society an essay upon the structure and diseases of articulating cartilages. This ingenious paper, on a subject which till then had not been sufficiently investigated, affords a striking testimony of the rapid progress he had made in his anatomical inquiries. As he had it in contemplation to teach anatomy, his attention was directed principally to this object; and it deserves to be mentioned as an additional mark of his prudence, that he did not precipitately engage in the attempt, but passed several years in acquiring such a degree of knowledge, and such a collection of preparations, as might ensure his success. Dr Nichols, to whom he communicated his

Hunter. scheme, and who about that time declined giving lectures in favour of Dr Lawrence, did not give him much encouragement to prosecute it. But at length an opportunity presented itself for the display of his abilities as a teacher. A society of navy surgeons had an apartment in Covent Garden, where they engaged the late Mr Samuel Sharpe to deliver a course of lectures on the operations of surgery. Mr Sharpe continued to repeat this course, till finding that it interfered too much with his other engagements, he declined the task in favour of Mr Hunter, who gave the society so much satisfaction that they requested him to extend his plan to anatomy, and at first he had the use of their room for his lectures. This happened in the winter of 1746. He is said to have experienced much solicitude when he began to speak in public; but the applause he met with soon inspired him with courage; and by degrees he became so fond of teaching, that for many years before his death he was never happier than when employed in delivering a lecture. The profits of his first two courses were considerable; but, by contributing to the wants of different friends, he found himself at the return of the next season obliged to defer his lectures for a fortnight, merely because he had not money enough to defray the necessary expense of advertisements.

In 1747 he was admitted a member of the corporation of surgeons; and in the spring of the following year, soon after the close of his lectures, he set out, in company with his pupil Mr James Douglas, on a tour through Holland and France. His lectures suffered no interruption by this journey, as he returned to England soon enough to prepare for his winter course, which commenced about the usual time.

At first he practised both surgery and midwifery; but to the former of these he had always an aversion. His patron, Dr James Douglas, had acquired considerable reputation in midwifery; and this probably induced Mr Hunter to direct his views chiefly to the same line of practice. His being elected one of the surgeon-accoucheurs, first to the Middlesex, and soon afterwards to the British Lying-in Hospital, assisted in bringing him forward in this branch of his profession, in which he was recommended by several of the most eminent surgeons of that time, who respected his anatomical talents, and wished to encourage him. But these were not the only circumstances which contributed to his success. He owed much to his abilities, and much to his person and manner, which eminently qualified him for the practice of midwifery.

In 1750 he seems to have entirely relinquished his views in surgery, as in that year he obtained the degree of doctor of physic from the university of Glasgow, and began to practise as a physician. About this time he quitted the family of Mrs Douglas, and went to reside in Jernyn Street. In the summer of 1751 he revisited his native country, for which he always retained a cordial affection. His mother was still living at Long Calderwood, which had now become his property by the death of his brother James. Dr Cullen, for whom he always entertained a sincere regard, was then established at Glasgow, and had acquired considerable reputation both as a practitioner and teacher of physic; so that the two friends had the pleasure of being able to congratulate each other on their mutual prosperity. During this visit he showed his attachment to his little paternal inheritance by giving many instructions for repairing and improving it, and for purchasing any adjoining lands that might be offered for sale. After this journey to Scotland, to which he devoted only a few weeks, he was never absent from London, unless his professional engagements, as sometimes happened, required his attendance at a distance from the capital.

In 1755, on the resignation of Dr Layard, one of the physicians of the British Lying-in Hospital, we find the go-

vernors of that institution voting their "thanks to Dr Hunter for the services he had done the hospital, and for his continuing in it as one of the physicians;" so that he seems to have been established in this office without the usual form of an election. The year following he was admitted as a licentiate of the Royal College of Physicians. Soon afterwards he was elected a member of the Medical Society; and to the *Observations and Inquiries* published by that society he at different periods contributed several valuable papers.

In 1762 we find him warmly engaged in controversy, supporting his claim to different anatomical discoveries, in a work entitled *Medical Commentaries*, the style of which is correct and spirited. As an excuse for the tardiness with which he brought forward this work, he observes in his introduction that it required a good deal of time, and he had little to spare; that the subject was unpleasant, and therefore he was very seldom in the humour to take it up. In this publication he confined himself chiefly to a dispute with the professor of anatomy at Edinburgh, concerning injections of the testicle, the ducts of the lachrymal gland, the origin and use of the lymphatic vessels, and absorption by veins. He likewise defended himself against a reproach which Professor Monro senior had cast upon him, by giving a concise account of a controversy he was involved in with Mr Pott, concerning the discovery of the *hernia congenita*. It was not long before Mr Pott took occasion to give the public his account of the dispute; and, in reply, Dr Hunter added a supplement to his *Commentaries*. No man was ever more tenacious than Dr Hunter of what he conceived to be his anatomical rights. This was particularly evinced in the year 1780, when his brother communicated to the Royal Society a discovery he had made twenty-five years before, relative to the structure of the placenta, the communication between it and the uterus, and the vascularity of the spongy chorion. At the next meeting of the society a letter was read, in which Dr Hunter put in his claim to the discovery in question. This letter was followed by a reply from Mr John Hunter, and here the dispute ended.

In 1762, when the queen became pregnant, Dr Hunter was consulted; and two years afterwards he had the honour to be appointed physician extraordinary to her majesty. About this time his avocations were so numerous that he became desirous of lessening his fatigue; and having noticed the ingenuity and assiduous application of Mr William Hewson, who was then one of his pupils, he engaged him first as an assistant, and afterwards as a partner, in his lectures. This connection continued till the year 1770, when some dispute happened which terminated in a separation. Mr Hewson was succeeded in the partnership by Mr Cruikshank, whose anatomical abilities were deservedly respected.

In 1767 Dr Hunter was elected a fellow of the Royal Society, and in the year following communicated to that learned body observations on the bones, commonly supposed to be elephants' bones, which have been found near the river Ohio in America. This was not the only subject of natural history on which our author employed his pen; for, in a subsequent volume of the *Philosophical Transactions*, we find him offering his remarks on some bones found in the rock of Gibraltar, and which he proves to have belonged to some quadruped. In the same work, likewise, he published an account of the nyl-ghau, an Indian animal not described before. In 1768, Dr Hunter became a fellow of the Society of Antiquaries; and the same year, at the institution of a Royal Academy of Arts, he was appointed by his majesty to the office of professor of anatomy. This appointment opened a new field for his abilities; and he engaged in it, as he did in every other pursuit of his life, with unabating zeal. He now

Hunter. adapted his anatomical knowledge to the subjects of painting and sculpture; and the novelty and justness of his observations proved at once the readiness and extent of his genius. In January 1781 he was unanimously elected to succeed the late Dr John Fothergill as president of the Medical Society. As his name and talents were known and respected in every part of Europe, so the honours conferred upon him were not limited to his own country. In 1780, the Royal Medical Society at Paris elected him one of their foreign associates; and in 1782 he received a similar mark of distinction from the Royal Academy of Sciences in that city.

The most splendid of Dr Hunter's medical publications was the *Anatomy of the Human Gravid Uterus*. The appearance of this work, which had been begun as early as the year 1751 (when ten of the thirty-four plates it contains were completed), was retarded till the year 1775, in consequence of the author's desire of sending it into the world with fewer imperfections. This great work is dedicated to the king. In his preface to it, we find the author very candidly acknowledging, that in most of the dissections he had been assisted by his brother Mr John Hunter, "whose accuracy," he adds, "in anatomical researches is so well known, that to omit this opportunity of thanking him for that assistance would be in some measure to disregard the future reputation of the work itself." He likewise confesses his obligations to the ingenious artists who made the drawings and engravings; "but particularly to Mr Strange, not only for having by his hand secured a sort of immortality to two of the plates, but for having given his advice and assistance in every part with a steady and disinterested friendship."

When Dr Hunter began to practise midwifery, he was desirous of acquiring a fortune sufficient to place him in easy and independent circumstances. Before many years had elapsed, he found himself in possession of a sum adequate to his wishes in this respect; and this he set apart as a resource of which he might avail himself whenever age or infirmities should oblige him to retire from business. After he had attained this competency, as his wealth continued to accumulate, he formed a laudable design of engaging in some scheme of public utility, and at first had it in contemplation to found an anatomical school in the metropolis. For this purpose, during the administration of Mr Grenville, he presented a memorial to that minister, in which he requested the grant of a piece of ground in the Mews, for the site of an anatomical theatre. Dr Hunter undertook to expend £7000 on the building, and to endow a professorship of anatomy in perpetuity. This scheme did not meet with the reception it deserved. In a conversation on this subject, which he had soon afterwards with the Earl of Shelburne, his lordship expressed a wish that the plan might be carried into execution by subscription, and very generously requested to have his name set down for a thousand guineas. Dr Hunter's delicacy would not allow him to adopt this proposal. He chose rather to execute it at his own expense, and accordingly purchased a spot of ground in Great Windmill Street, where he erected a spacious house, to which he removed from Jermyn Street. In this building, besides a handsome amphitheatre and other convenient apartments for his lectures and dissections, there was one magnificent room, fitted up with great elegance and propriety as a museum. Of the magnitude and value of his anatomical collection some idea may be formed, when we consider the number of years he employed in making the anatomical preparations, and in the dissection of morbid bodies, added to the eagerness with which he procured additions from the collections of Sandys, Hewson, Falconer, Blackall, and others, that were at different times offered for sale in this metropolis. His specimens of rare diseases were likewise frequently increased

by presents from his medical friends and pupils; who, when any thing of this sort occurred to them, very justly thought they could not dispose of it more properly than by placing it in Dr Hunter's museum. Speaking of an acquisition in this way in one of his publications, he says, "I look upon every thing of this kind which is given to me, as a present to the public; and consider myself as thereby called upon to serve the public with more diligence."

Before his removal to Windmill Street, he had confined his collection chiefly to specimens of human and comparative anatomy, and of diseases; but now he extended his views to fossils, and likewise to the promotion of polite literature and erudition. In a short space of time he became possessed of a most magnificent collection of Greek and Latin books. A cabinet of ancient medals contributed likewise much to the richness of his museum. A description of part of his coins in this collection, struck by the Greek free cities, was afterwards published by the doctor's learned friend Mr Combe. In the preface some account is given of the progress of the collection, which has been brought together since the year 1770, with singular taste, and at the expense of upwards of £20,000. In 1781, the museum received a valuable addition of shells, corals, and other curious subjects of natural history, which had been collected by the late worthy Dr Fothergill, who gave directions by his will, that his collection should be appraised after his death, and that Dr Hunter should have the refusal of it at £500 under the valuation. This was accordingly done, and Dr Hunter purchased it for the sum of £1200.

Dr Hunter, at the head of his profession, honoured with the esteem of his sovereign, and in possession of every thing that his reputation and wealth could confer, seemed now to have attained the summit of his wishes. But these sources of gratification were embittered by a disposition to the gout, which harassed him frequently during the latter part of his life, notwithstanding his very abstemious manner of living. On Saturday the 15th of March 1783, after having for several days experienced a return of a wandering gout, he complained of great headach and nausea. In this state he went to bed, and for several days felt more pain than usual, both in his stomach and limbs. On the Thursday following he found himself so much recovered, that he determined to give the introductory lecture to the operations of surgery. It was to no purpose that his friends urged to him the impropriety of such an attempt. He was determined to make the experiment, and accordingly delivered the lecture; but towards the conclusion his strength was so exhausted that he fainted away, and was obliged to be carried to bed by two servants. During the night and the following day his symptoms were such as indicated danger; and on Saturday morning, Mr Combe, who made him an early visit, was alarmed on being told by Dr Hunter himself, that during the night he had certainly had a paralytic stroke. As neither his speech nor his pulse were affected, and he was able to raise himself in bed, Mr Combe encouraged him to hope that he was mistaken. But the event proved the doctor's idea of his complaint to be but too well founded. He died on Sunday the 30th of March 1783.

By his will, the use of his museum, under the direction of trustees, devolved to his nephew Dr Matthew Baillie, and in case of his death, to Mr Cruikshank, for the term of thirty years; at the end of which period the whole collection was bequeathed to the university of Glasgow, where it is now deposited.

HUNTER, John, an eminent surgeon, was the youngest child of John Hunter of Kilbride, in the county of Lanark. He was born at Long Calderwood on the 13th of July 1728. His father died when he was about ten years of age, from which circumstance his mother was induced to grant him

Hunter. too much indulgence. In consequence he made no progress at the grammar school, and was almost wholly illiterate at the age of twenty, when he arrived in London. His brother Dr W. Hunter was at that time the most eminent teacher of anatomy, and John expressed a wish to attend him in his researches. The doctor, anxious to make trial of his talents, gave him an arm to dissect for the muscles, with proper instructions how it was to be performed; and the dexterity with which he managed his undertaking exceeded the expectations of his brother.

Having acquired some reputation from this first attempt, his brother employed him in a more difficult dissection, which was an arm in which all the arteries were injected, and these and the muscles were to be preserved and exposed. In the execution of this task he also gave the highest satisfaction, and his brother predicted that he would become a good anatomist, and never want employment. Under the instructions of his brother, and Mr Symonds his assistant, he enjoyed every favourable opportunity of increasing his anatomical knowledge, since that school monopolized all the dissections then carried on in London.

He was admitted into partnership with his brother in the winter of 1755, and a certain department of the lectures was allotted to him; and he also lectured when the doctor was called away to attend his patients. The mind of Mr Hunter was peculiarly fitted for the study of anatomy, and the indefatigable ardour with which he prosecuted it is scarcely to be equalled. He applied to human anatomy for ten years, during which period he made himself master of every thing then known, and also made some considerable additions. He was the first who discovered the existence of the lymphatic vessels in birds.

In 1760 his friends advised him to go abroad, as he exhibited many symptoms of an incipient consumption. In October that year he was appointed a surgeon on the staff by the inspector-general of hospitals, Mr Adair, and in the spring of the ensuing year he went to Belleisle with the army. He served, during the continuance of the war, as senior surgeon on the staff, when he acquired his knowledge of gun-shot wounds. He settled in London on his return to England; but finding that his half-pay and private practice could not support him, he taught practical anatomy and surgery for several winters. He built a house near Brompton, where he pursued the study of comparative anatomy with unabated ardour. He discovered the changes which animal and vegetable substances undergo in the stomach by the action of the gastric juice; the mode in which a bone retains its shape during its growth; and explained the process of exfoliation, by which a piece of dead bone is separated from the living.

On the 5th of February 1767, he was chosen a fellow of the Royal Society. In the year 1768 he became a member of the incorporation of surgeons, and in the following year was elected one of the surgeons of St George's Hospital, through the influence of his brother. He published his treatise on the natural history of the teeth in May 1771; and in July the same year he married Miss Home, daughter of Mr Home, surgeon to Burgoyne's regiment of light horse. His private practice and professional reputation advanced with rapidity after his marriage; and although his family increased, he devoted much of his time to the forming of his collection. He discovered the cause of

failure in the cure of every case of hydrocele, and proposed a mode of operating in which that event may certainly be avoided. He ascertained that simple exposure to the air can neither produce nor increase inflammation; and he considered the blood as alive in its fluid state. He also discovered that the stomach after death is sometimes acted on and dissolved by the gastric juice, respecting which he communicated a paper to the Royal Society.

Comparative anatomy occupied the greater part of his time and attention, and he suffered no opportunity to escape him. He dissected the torpedo in 1773, and laid an account of its electrical organs before the Royal Society. A young elephant which had been presented to the queen having died, it was given to Dr Hunter, and afforded him an opportunity of examining the structure of that monstrous animal, as did also two others which died in the queen's menagerie. In the year 1774 he published an account, in the Philosophical Transactions, of certain receptacles of air in birds, communicating with the lungs, and lodged in the muscular parts and hollow bones of these animals. Several animals belonging to the species called *Gymnotus electricus* of Surinam having been brought alive to Britain in 1775, their electrical properties excited a considerable share of the publication, and Mr Hunter purchased many of them after they died, for the purpose of prosecuting his favourite experiments. He published an account of their electrical organs in the Philosophical Transactions for 1775; and in the same volume appeared his experiments on the power of animals and vegetables to produce heat.

Mr Hunter was appointed surgeon-extraordinary to his majesty in 1776, in the autumn of which year he became extremely ill, when both himself and his friends apprehended that his life was in danger; but he happily recovered so far as to be able to publish the second part of his treatise on the Teeth in 1778, which completed the subject; and in 1779 he published in the Philosophical Transactions his account of the Free Martin. He was chosen a fellow of the Royal Society of Sciences and Belles Lettres at Göttingen, and in 1783 he became a member of the Royal Society of Medicine and the Royal Academy of Surgery in Paris. When Mr Adair died Mr Hunter was appointed inspector-general of hospitals, and surgeon-general to the army. This event happened in 1792, at which time he was elected honorary member of the Chirurgo-Physical Society of Edinburgh, and one of the vice-presidents of the Veterinary College of London, then first established. He published also three papers on the treatment of inflamed veins, on intro-susception, and on the mode of conveying food into the stomach in cases of paralysis of the œsophagus.

On the 16th of October 1793, when in his usual state of health, he went to St George's Hospital, and meeting with some things which irritated his mind, and not being perfectly master of the circumstances, he withheld his sentiments; in which state of restraint he went into the next room, and turning round to Dr Robertson, one of the physicians of the hospital, he gave a deep groan, and dropt down dead, being then in his sixty-fifth year, the same age at which his brother Dr Hunter had died.

HUNTER'S ISLES, a cluster of small islands lying off the north-west extremity of Van Diemen's Land, and frequented by numerous sea-fowls and seals. Long. 145. E. Lat. 40. 30. S.

Hunter's Isles.

HUNTING.

Hunting. NATURE has prepared many advantages and pleasures for the use of mankind, and given them the taste to enjoy them, and the sagacity to improve them; but of all the out-of-door amusements that have occupied the modern world, at least the male part of it, nothing has better stood the test of time than the noble diversion of hunting.

"Of all our fond diversions,
A hunter's is the best;
In spite of wars, and petty jars,
That sport has stood the test."

And why has it stood the test? Not merely because the passion for the chase is interwoven closely with our nature; not because it originated in necessity, therefore originated in nature; but because it has been encouraged and approved of by the very best authorities, and practised by the greatest men. It cannot now, then, be supposed to dread criticism, or require support; neither can any solid objections be raised against a reasonable enjoyment of the sports of the field in general, provided what ought to be the pleasing relaxation of a man's leisure hours be not converted into the whole business of his life. But hunting, above all others, is a taste characteristically manly and appropriate to the gentlemen of Great Britain; and it has likewise another advantage over all other sports of the field, which adds much to its value in this land of liberty, and especially in the present age: it is a kind of Saturnalian amusement, in which the privileges of rank and fortune are laid aside, the best man in the chase being he who rides the best horse, and who is best skilled in the use he should make of his superiority.

But let us look a little into the origin of hunting, the encomiums passed upon it, and the advantages derived from it.

We shall commence with the sacred history itself, which describes the first warriors under the denomination of hunters; and not only did the passion for the chase form a kind of society between the dog, the horse, the falcon, and man, but Pliny is quite correct in saying that hunting was not only one of the first exercises of man, but that it gave rise to monarchical states. For example, Nimrod, the first king, who reigned at Babylon, devoted himself to hunting, and delivered his subjects from the savage beasts that desolated the country; and in the sequel, by making soldiers of his companions in the chase, employed them in extending his empire, and establishing his conquests. In fact, nothing in those days procured a man so much esteem as being an expert sportsman or hunter; and had not Nimrod been a sportsman, he would not have been a king. People submit themselves to government by force, as wild animals do, and not by choice; and he erected himself into a monarch by finding himself stronger than his neighbours. He taught the people to make up companies for the chase; and, after exercising them for this purpose in the first instance, he led them on by degrees to a social defence of one another, and thus laid the foundation of his authority and his kingdom. It is no wonder, then, that so many of the first kings or heroes of whom antiquity makes mention should be characterised as celebrated hunters, and destroyers of noxious animals; an employment prescribed in the Book of Moses, and deified in the theology of the Pagans. Bacchus is drawn by tigers, because he subdued them; Apollo obtained the laurels that encircle his brow, by killing the serpent Python; and Hercules got his lion's skin by his exploits in the forest of Nemæa. Diana was

worshipped in her temple, the finest the world ever saw, in honour of her skill in destroying noxious animals; even Venus herself took the field, and Adonis was killed in the chase. The Egyptians, also, in their most splendid ages, were much addicted to hunting; and it was the common exercise of the children educated in the court of Sesostrius.

But there would be no end to these examples of the acknowledged benefits of the chase, on the manners and characters of nations. The ancient Persians considered hunting not only as a serious employment, but an excellent preparation for war, in which the same weapons were used as in the chase; and their renowned monarch, Cyrus, was the first sportsman of his day. With the Athenians the passion for the sports of the field was so strong, that Solon was obliged to restrain the ardour for hunting, to prevent the people neglecting the mechanic arts, which it was his wish they should cultivate; and the Lacedæmonians, who were warriors by profession, cultivated hunting with incessant care. It was not only their ruling passion, but there is reason to believe they exercised in it the greatest skill; and, as we learn from Virgil, in his third Georgic, they were celebrated for their breed of speedy dogs. But there is not a nation in which it has not been found necessary to restrain by laws the excessive love for the chase; so natural is it to man, and so apt to degenerate into a passion injurious both to health and to society.

One of the greatest compliments paid to the chase is, its having been considered as a theme worthy the pens of the ablest writers of the most refined periods of the world. Whilst Greece was the nursery and residence of every branch of polite literature, and of all the arts and sciences then known to mankind; whilst every study that depends on the powers of the imagination, or the faculties of the understanding, was there carried to the very summit of perfection; we find Xenophon composing his *Kyriaike*, treating of every description of field-sports. He, according with the custom of the times, opens the subject with fable, and tells us that hunting, which he calls the gift of the gods, and the use of dogs, originated with Apollo and Diana, and that the invention was made a present of to Chiron, who took pupils in the art, each of whom was, in his turn, honoured by the gods (*ἀπὸ θεῶν ἐπιδιδόνον*). His real object, however, was to encourage in the youth of his country a taste for the pleasures of the chase, and other manly pastimes, as the best preparation for war, the senate, and the world. Whilst he condemns the effeminate man as shamefully useless to his country, he represents the well-trained sportsman as not only mighty in war, but ready to sacrifice his person and his wealth to the public good. As a preparation for war, and particularly the higher branches of the soldier's profession, we need not the testimony of Xenophon; for our own experience has shown us, that, speaking generally, no man takes a view of a country, at first sight, with equal facility to a sportsman, particularly a sportsman who has been accustomed to follow hounds. Indeed, unless he have what is called in the field, "a good eye to a country," he cannot ride with judgment after hounds in our enclosed or woodland districts; and when the chase is concluded, it is surprising to witness the rapidity with which an experienced fox-hunter sees the points of a country in which he is a stranger, that must lead him towards his wished-for home. With respect to the other advantages alluded to by Xenophon, he had very good authority for what he asserted of them. The

Hunting. Olympic games were established by the Greeks for two distinct purposes: first, to inspire their youth with a love of glory, as well as a taste for manly and invigorating exercises, conducive to contempt of danger, and coolness when exposed to it; and, secondly, with a view of drawing together the leading men of the different states of Greece, which gave them an opportunity of deliberating upon matters of general concern. As regarded the other various occupations of life which a gentleman is called upon to fulfil and do honour to, we may remark, that an irreproachable moral character was a necessary qualification for a competitor at those games or sports. Drawing something like a parallel here, then, we may add, that neither is a sportsman in our own country esteemed, how skilful soever he may be, if his character be tainted with fraud; and we are not unmindful of the advantages derived from the mixture of society in the hunting-field, or of the many valuable and lasting friendships that may be dated from accidental meetings by the cover's side. But Xenophon wrote in praise of hunting rather perhaps as a soldier than a philosopher, giving it as his opinion, that the exercise of the chase formed the best soldiers in the world; that it habituated men to cold, heat, and fatigue; that it kindled courage, elevated the soul, and invigorated the body; that it retarded the effects of age, and rendered the senses more acute; and, finally, that the pleasure it afforded was a sovereign remedy against all mental uneasiness; in which latter sentiment he is seconded by a modern author of celebrity, who says that "the chase fortifies the heart as well as the body." Nor is Xenophon the only eminent soldier or philosopher of his renowned country who has written in commendation of hunting. Aristotle wrote a treatise on field-sports, by order of Alexander the Great; and Polybius, one of the greatest soldiers of any age, relates that Maximus restored discipline in the Roman legions, by often exercising them in hunting; and he even goes so far as to celebrate one individual sportsman, Ptolemy Epiphanes, for his dexterity in killing a wild bull. Amongst the poets of Greece, Oppian distinguished himself highly by his poems on hunting. So excellent, indeed, were they considered by his emperors, that he is said to have presented him with a piece of gold for every verse they contained, and thus they acquired the honourable appellation of "the golden verses of Oppian." Several of the most splendid similes of Homer are taken from hounds in chase, and it is in the manly character of Achilles that we chiefly recognise him as his hero.

The Romans at one time discouraged hunting amongst the upper orders of society, from the fear of its becoming a passion which might divert them from their essential duties. But here they committed an error; for, aware of its beneficial effects in forming their people for war, they substituted public exhibitions of animals destroying each other in an amphitheatre, which could only have hardened the heart, without advantage to either body or mind. Yet we find many of their emperors encouraging hunting, and many of their best writers extolling it. The learned and polished Hadrian was so passionately addicted to hunting, and also to horses and dogs, that he erected monuments to the memory of the latter, and built a city on the spot on which he had killed a wild boar, after a desperate encounter with him, and which he called by a word which, being interpreted, signifies Hadrian's chase. Amongst the celebrated writers of the Augustan age, we may mention two, who, not being themselves sportsmen, could only have made sporting a subject for their pens, from a sense of the benefits arising from it. Virgil makes his young Ascanius a sportsman as soon as he is able to sit his horse; and he also makes him, at a very early age, the first in the fight (*primum bello*), as he had been the first in the field. In the speech addressed to him by the

Hunting. bold Numanus, which cost that hero his life, we have the finest contrast of the evils of effeminate habits with the benefits of manly pursuits, that the pen of a satirist could produce. The words, *O veræ Phrygiæ, neque enim Phryges!* "Oh, worse than women in the shape of men," convey the severest rebuke a nation could receive for having made themselves contemptible to their enemies, by the effects of an effeminate life, and pursuits unworthy of men; whereas the advantages of the manly exercises of youth are finely set forth in the vaunting exclamation of this hardy Rutulian. Neither is Horace behind his contemporary poet in his disgust of an effeminate youth. In the twenty-fourth ode of his third book, he beautifully contrasts those softening pleasures which emasculate the mind and enervate the body, with the opposite effects of manly sports and exercises; and, in his justly celebrated Epistle to Lollius, he recommends the chase, not only as a noble exercise, but as contributing to health and peace of mind. His *Carmen Seculare* was also written in honour of manly exercises; and in another of his odes we find him upbraiding a young Roman for giving up the manly exercise of riding; and glancing at the destruction of Troy, and the feminine education of Achilles, seeming to insinuate, that effeminacy was likely to destroy the energies of his own countrymen, as it had those of others. That his apprehensions were not unfounded, a few centuries proved; for the Romans, after the conquest of Persia and other distant kingdoms, participating in their luxurious habits, became as easy a prey to the Goths and Vandals, as the Grecians and other nations had before been to themselves; and, in the decline of the republic, the few victories which they gained were achieved but by the terror of their name. Minor poets have also made sporting their theme. Gratius wrote a poem on coursing. He was contemporary with Ovid, and a sportsman, as the knowledge of his subject denotes. Nemesianus also, three centuries afterwards, wrote some poems on hunting, though they have not been so highly esteemed. But the sports of the field are alluded to by innumerable classic writers, and made the groundwork of their most beautiful allegories and fables, both in verse and prose; and perhaps, after all, the greatest compliment that can be paid to them, as well as the best answer to the assertion that any man can make a sportsman, is to be found in the latter department of literature. We allude to the letters of that accomplished country gentleman and scholar, Pliny the consul, in which he speaks of his prowess in the chase. In one addressed to Tacitus the historian, boasting of a famous day's sport he had been enjoying, he also boasts of the good effect it had had on his mind, telling him that Minerva accompanied Diana on the hills; and in the eighteenth letter of the fifth book he goes a point beyond this: "As for myself," says he to his friend Macer, "I am employed at my Tuscan villa in hunting and studying, sometimes alternately, and sometimes both together; but I am not yet able to determine in which of those pursuits it is most difficult to succeed."

It is not surprising that hunting should have been the theme of poets, as poetry then ceases to be the language of fiction; neither can the subject itself be deemed unpoetical, as it affords an opportunity to expatiate, not merely on the beauties, but also on the endowments of nature. That the feelings of nature have more of rapture in them than those which are excited through the medium of science, is a fact which cannot, we think, be denied; and thus do we account for the exhilarating passion of the chase. To describe a chase, however, is a task of no small difficulty, and perhaps more so in prose than in verse, as the imagination must be powerfully excited by the transporting scenes on which it has dwelt, and cannot well be restrained in a mere recital of facts. When the noise of the battle is over, powerful must be the pen that could revive

Hunting. the clang of arms. "The chase is done," sings Ossian ;
 "and nothing is heard on Ardven but the torrent's roar."

Somerville's poem of *The Chase* will live to the end of time ; for although it was not faultless in the eyes of the perhaps too rigid Johnson, it is written with the spirit and fire his subject demanded ; and many of the instructions it conveys, when stripped of their poetical dress, are esteemed by sportsmen of the present day. "Manners," says Lord Kames, "are never painted to the life by any one to whom they are not familiar ;" neither could a man have written the poem we speak of unless he had been himself a sportsman. Indeed his descriptions of hunting the hare, the stag, and the fox, place the objects clearly and beautifully before our eyes, and show that the poet had often witnessed with rapture the scenes to which he devoted his muse. The following passage, descriptive of the feelings of a master of hounds on a hunting morning, is not merely truly natural, but at the same time highly poetical :

"Hail, gentle dawn ! mild, blushing goddess, hail ;
 Rejoic'd I see thy purple mantle spread
 O'er half the skies ; gems pave thy radiant way,
 And orient pearls from every shrub depend.
 Farewell, Cleora ! here, deep sunk in down,
 Slumber secure, with happy dreams amused.
Me other joys invite ;
 The horn sonorous calls, the pack awak'd
 Their matins chaunt, nor brook my long delay :
 My courser hears thy voice ;—See there ! with ears
 And tail erect, neighing, he paws the ground ;
 Fierce rapture kindles in his redd'ning eyes,
 And boils in ev'ry vein."

Although hunting songs are a species of ancient lyrics, of which the specimens are rare, and in our own country "the songs of the chase" do not appear to include any earlier than the middle of the seventeenth century, we have some of a more modern date that have been highly popular with the public, and no doubt have given the original impulse to many a good sportsman. The power and force of national songs have never been disputed in any age ; and he who said, that if he were allowed to compose the ballads of a nation, he would soon alter its form of government, uttered a boast not altogether unfounded in the principles of human nature. Compositions of this kind, then, that tend to encourage a love of manly pursuits and pastimes, and give a relish to a country life, should by no means be thought lightly of by a people who, like ourselves, have ever been conspicuous for our excellence in the one, and our fondness for the other ; but which, in the opinion of some, appear to be on the wane, as the natural consequence of our present state of almost excessive refinement. This would be a real cause for regret. The fondness for rural life amongst the higher order of the English has hitherto had a great and salutary effect upon the natural character of their country ; and there cannot be found a finer race of men than the country gentlemen of Great Britain. Instead of the softness and effeminacy which characterise the men of rank of most other nations, they exhibit a union of *natural* elegance and strength, a robustness of frame and freshness of complexion, which are to be attributed to their living so much in the open air, and pursuing so eagerly the invigorating recreations of a country life. Their hard exercise produces a healthy tone of mind and spirits, as well as of body, accompanied with a manliness and simplicity of manners, which even the follies of a town cannot easily pervert, and can never entirely destroy. Let us, however, hope that the fears on this head are groundless ; let us hope that what Horace sighed for, what Cato, Plato, and Cicero recommended, what Bion eulogised, what all the best poets of antiquity sang the praises of (according to the poets, the golden age was spent in the country), and for which kings and emperors quitted their thrones, will never be ill suited to, or considered as beneath the taste of a Bri-

tish country gentleman, in what circle soever he may move. Hunting. That the sports of the field are classical, the authority of all ages will vouch for ; neither is the man of fashion, or *haut ton*, by any means incompatible with the country gentleman and sportsman. On the contrary, how has the character of Paris been handed down to us by the poets ? Was he not the finest gentleman, the greatest favourite of the female sex, the greatest beau of his day ? Such he is represented to have been ; but although a prince, he had been bred a shepherd ; and from the robust habits he had acquired in his youth, he was the only man who could stand up against the powerful arm of Dares, the great champion of his day. What was the all-accomplished Pliny, or Lollius whose education Horace had superintended ?

Again ; on the score of health, the chief felicity of man, were it not for the sports of the field, the softness and effeminacy of modern manners, in the higher walks of life, would soon exhibit their pernicious effects on forthcoming generations, by depriving them of their natural defence against diseases incident to our climate, by subjecting them to that morbid debility and sensibility of the nervous system which lays the foundation of most diseases, as also depriving them of the courage to support them. And who enjoys the blessing of health equally with the country gentleman and sportsman ? Somerville says,

"In vain malignant steams and winter fogs
 Load the dull air, and hover round our coasts ;
 The huntsman, ever gay, robust, and bold,
 Defies the noxious vapour, and confides
 In this delightful exercise to raise
 His drooping head, and cheer his heart with joy."

Certain is it, the rough sports of the country have been known not only to cure diseases of long standing in the human frame ; but the exercise of hunting, *with the temperance it enjoins*, absolutely steels the constitution, as the poet expresses himself, against the attacks of the most common of the diseases peculiar to this variable climate. Its effect on the mind, which he also alludes to, is of no less value ; for, from the very exhilarating nature of the amusement, it relieves it from dwelling upon its anxieties, from which few persons are free ; and it is one of the best cures for the heartach, or any of those shocks which our flesh is heir to :—

"*Dona cano divum, lætas venantibus artes,
 Auspicio, Diana, tuo,*"

sang the poet Gratinus ; and Horace's description of a sportsman's return to his family, after the toils and perils of the day, is a true picture of a country life, replete with every possible enjoyment.

Objections have been made to encouraging youth in a love of our national field-sports, on the score of their engrossing too much of their time and attention, to the neglect of more necessary attainments. "It is true," says a Roman historian, "the masters in every branch of learning, whom the accomplished father of Commodus provided for his son, were heard with inattention and disgust ; whilst the lessons of the Parthian, or the Moor, in the arts of the javelin and the bow, could not be too often repeated." But where is the pursuit that may not be carried to excess ? and yet without zeal no person ever succeeded in field-sports of any kind, much less in hunting. "Whatever thy hand findeth to do, do it with all thy might," said Solomon ; and had not Providence implanted this zeal in man's nature, he never would have been what man now is, but, comparatively, a useless being. Objections are again made, that the sports of the field, hunting animals with dogs especially, are cruel ; but the charge, if proved, does not altogether lie against man. The beasts and birds of the field have been given to him, as well as the way to procure them pointed out to him ; or wherefore the almost unsearchable faculties of the dog ? Some persons, however, have

Hunting: thought otherwise: "Is it a labour worthy of man," says a very celebrated English writer, "to watch from day to day, from night to night, the haunts of our fellow animals, that we may destroy them? To triumph over a poor mangled hare or hind, after we have harassed them up and down the country for many hours together with an army of dogs and men? Is it an exercise becoming the majesty of a rational spirit to run yawling with a parcel of hounds, perhaps a whole day together, after some timorous animal?" In answer to this it may be urged, that we knew no other method of availing ourselves of them when first they were given for our use; and it may be strongly urged, that the destruction of wild animals was never so speedily, and therefore humanely accomplished, as it is at the present day. A century or two ago, the fox lingered all night in a trap, and then too often was subjected to a lingering, if not an agonizing death. He is now killed by hounds, generally in a short time, if he cannot escape from what may be deemed his lawful pursuers. The buck in the forest of the king, or in the park of the nobleman, is now no longer hunted down by the slow but sure blood-hound, a race nearly extinct, but the unerring eye of the rifle-shot seals his doom on the spot. We agree with the poet, that

"Poor is the triumph o'er the timid hare;"

but she was given for our use, and must be taken, as Esau took the venison, *by hunting her*; and here likewise is an improvement. A hundred years back she was trailed up to her form, the operation perhaps of an hour, with the terror-striking notes of the hounds all that time in her ear; and then pursued for at least two hours more, by animals with not half her speed, but with a power of following her by the foot, which it was nearly impossible to evade. At the present day she is whipped out of her form, twenty minutes generally deciding her fate; and, in consequence of her being now pursued in the forenoon, instead of, as before, just on her return from her walk, she escapes oftener than she is killed. Animals destined to fall by the gun are now nearly certain of meeting with instant death. In addition to the increased skill of our marksmen, the improved formation of the gun enables it to carry destruction with a much surer hand, owing to the force and precision with which it carries its shot. Thus, if the game be stricken, it is stricken to instant death, not wounded and mangled by weak, scattered shot. Another consideration presents itself in the discussion of this subject. Life is said to be "sweet;" but strip it of intellectual enjoyment, and its sweetness is very considerably abated. But we will go one step farther. The natural death of wild animals must generally be lingering, and often painful in the extreme; they have no relief to fly to, but perish as it were by inches. This being admitted, perhaps the hand that instantly deprives them of life may be deemed the hand of a friend.

An old English writer on field-sports thus forcibly, though somewhat boldly, expresses himself on the alleged cruelty of hunting the hare to death. "What can be a more convincing proof of God's infinite wisdom, or even of his indulgence to the sons of men, than the formation of this animal (the hare), which naturally flies from creatures she never beheld in her life, makes use of the most refined politics to escape their pursuits (although she cannot foresee whether they are the effects of love or anger), and yet is forced to leave behind her such particles of matter as betray her flight? Again, of how nice and curious a texture must be the innumerable pores or pipes of the dog's nostrils, which serve as so many sheaths, or canals, to convey the said particles to the brains of the hounds, there to animate and put in motion every limb, joint, and muscle of their bodies. How excellent was the Hand that furnished these creatures with such tuneful notes to assemble their fellows, and give tidings to their

masters, with such an amazing art to unravel the various windings of the fugitive, with so relentless fury to pursue her to the death."

But our sensibilities towards the sufferings of animals are limited, not only in wisdom, but in mercy (for, increase our sensibilities, and who could live?) and let us not charge a sportsman with cruelty because he is the destroyer of that part of the brute creation which was evidently intended should be destroyed by some one. Sportsmen have existed, and must for ever exist, from necessity. They have extirpated some animals, and culled out such as are serviceable to man, and submit to his will and government. Those that will submit are his friends, those that will not are his foes; and so it was intended to be since the charge was given to Adam, and the subsequent commission to Noah. The sports of the field, indeed, as now followed, are generally allowed to have a tendency to improve and promote a free and generous conduct, as well as that manly spirit which is the very reverse of cruelty; and, in the harmless exercise of our imagination, looking at that law of nature which enjoins the destruction of one animal for the good of another, so far from passing a hard sentence on the sportsman, we think with the poet, that

"His life is pure, who wears no fouler stain!"

No great satisfaction would arise from a reference to the practices of the ancients in the field, who, it appears from Virgil, hunted any thing, from the wild ass to the stag; but, we have reason to believe, without much system, as far as their dogs had to do with it. We conceive the ancient Germans and Gauls to have been the best early sportsmen upon system; and the ancient Britons, who came originally from Gaul, and, according to Cæsar and Tacitus, were one of the widely-extended Celtic tribes, introduced, or rather brought with them from Gaul, that ardent passion for the chase for which Great Britain has ever since been remarkable. The Anglo-Norman and early English monarchs likewise all appear to have had a passion for the chase; and although a code of laws relative to hunting was formed by one of the Welsh princes in the twelfth century, containing a list of animals, climbing ones, for example, which does not accord with the present idea of *hunting*, we hear nothing of fox-hounds *per se*, till we find them in the kennel of Edward I., and an item in his wardrobe book of L.21. 6s. as the annual expenses of his pack, consisting of six couples. Soon after this period, at all events in the course of the next king's reign, the diversion of hunting in England may be said to have been first reduced to something like a science; treatises having been written on the subject for the instruction of young sportsmen, as well as rules laid down for the observation and conduct of those who filled the various offices, in the forest, the kennel, and the stable. One of the most curious of these performances, is a manuscript written in the beginning of the fourteenth century, in Norman French, by William Twice, huntsman to Edward II., an ancient translation of which occurs amongst the Cottonian manuscripts. In it are enumerated and described the different beasts that were then objects of the chase in England; and, in the manner of a dialogue, the huntsman is informed how he should blow his horn at the different points of a chase. But the generally rude system of hunting in the earlier days of England had previously been in some measure improved and amended by William the Conqueror, of whom Somerville thus writes:—

"Victorious William to more decent rules
Subdued our Saxon fathers; taught to speak
The proper dialect; with horn and voice
To cheer the busy hound, whose well-known cry

Hunting.

His list'ning peers approve with joint acclaim.
From him successive huntsmen learn'd to join
In bloody social leagues, the multitude
Dispers'd; to size, to sort, their warrior tribes,
To rear, feed, hunt, and discipline the pack."

Edward III. was a great stag-hunter; and even at the time he was engaged in war with France, and resident in that country, he had with him, attached to his army, sixty couples of stag-hounds, and an equal number of hare-hounds. We also learn from Froissart, that the Earl of Foix, a foreign nobleman, contemporary with King Edward, had one hundred and fifty couples of hounds in his castle. But it does not appear that the fox was much in esteem for the chase by any of the Anglo-Norman sportsmen; for in Twice's Treatise on the Craft of Hunting, he is classed last of all the beasts of venery, excepting the martens and the roe; nor does Somerville in his poem treat him with the respect that he pays to the stag or the hare. The first public notice of him occurs in the reign of Richard II., who gave permission, by charter, to the Abbot of Peterborough, to hunt him. Hunting, however, in all its branches, appears to have advanced steadily till the last century, when it flourished greatly by the encouragement given to it by George III.; and as time improves every art, it has at length, we believe, attained perfection.

Whatever pastime mankind indulge in, their first endeavour should be to make themselves acquainted with the best means of pursuing it, which will greatly increase the pleasure derived from it. But as the philosopher was laughed at for his offer of teaching Alexander the Great the art of war, so the theory of no pastime is worth any thing unless it be based on practice. And, perhaps, of all sports invented by reason for the use and amusement of mankind, there is none to which theory would avail so little as the noble and popular one of hunting. Indeed, the practical part of hunting, notwithstanding its popularity, is but little known, at least but little understood, from the perplexing difficulties that accompany it; and there is reason to believe it was still less understood before the appearance of a work, in which the whole system is minutely and accurately detailed by an eminent sportsman, and master of fox-hounds, of the early part of the last century. It is scarcely necessary to observe, that the work alluded to is "Beckford's Thoughts upon Hunting, in a series of familiar Letters to a Friend;" of which it has been said, "they are so truly the effusions of sound judgment, and so replete with the useful remarks of an experienced sportsman, that there is no room for any thing new or additional to be introduced upon the subject." It is true, this has been considered, and will continue to be considered, as a standard work amongst sportsmen; but as systems and habits change with time, and many of both have been materially changed since Beckford's day, another work on fox-hunting, also from a practical pen, made its appearance in 1826, and was well received by the sporting world, viz. "Observations on Fox-Hunting, and the Management of Hounds in the Kennel and the Field, by Colonel Cook," several years a master of fox-hounds; hunting various English counties, but principally the Rodings of Essex, celebrated for the stoutness of its foxes.

It is only within a very short space of time that sportsmen have been given to communicate their thoughts, or the result of their experience in the field, to the public, unless under fictitious signatures. In proof, however, of the benefit derived from such contributions to the stock of sporting science, if such a term will be allowed; and likewise in confirmation of what has been advanced on the subject of change of systems and habits that occurs in the course of time, we will make a few comments

on the practices of one of the most conspicuous sportsmen England ever gave birth to, the celebrated Hugo Meynell, Esq. of Quorndon Hall, Leicestershire, and made partially known through the medium of a small pamphlet, entitled "The Meynellian Science, or Fox-Hunting upon System," by the late John Hawkes, Esq. a personal friend of Mr Meynell's. That Mr Meynell studied fox-hunting as a science, we believe no one will deny; and that his master-mind was quite equal to the task he imposed upon himself, is also an admitted fact; for he was a man of more than ordinary acuteness, coupled with a close and accurate observation of every thing that passed under his eye; and all this with the benefit of an education perfected beyond the usual extent of that bestowed upon, or, perhaps we may say, submitted to, by young gentlemen of large fortune in his day, having studied nearly three years under a private tutor after he became of age. That he shone beyond all others who had preceded him, in the breeding and management of hounds, is a fact universally admitted, producing, as Mr Hawkes says of them, "the steadiest, best, and handsomest pack of fox-hounds in the kingdom;" adding also the emphatic remark, that his object was to combine strength with beauty, and steadiness with high mettle. His idea of perfect shape was, short backs, open bosoms, straight legs, and compact feet; and the first qualities of hounds he considered to be fine noses and stout runners, opinions which all found to hold good.

But there were peculiarities in Mr Meynell's system of hunting, to which, as detailed by Mr Hawkes, we scarcely know how to reconcile ourselves. For example, he tells us that his young hounds were broken in to *hare* in the spring of the year, "to find out their propensities, which, when at all flagrant, they early discovered, and he drafted them according to their defects;" and in the same page he adds, "after hare-hunting, they were, the remaining part of summer, daily walked amongst riot." Now we cannot approve of entering hounds to an animal they are not intended to hunt, and are at a loss to comprehend what is here meant by the word "riot," unless it be hares (as the term generally implies) or deer (which were never found wild in his country), which they had been previously instructed to hunt. Their "propensities," also, by which is here generally understood their steadiness or unsteadiness, must, under such circumstances, have been rather difficult to pronounce an opinion upon, with the exception of their promising to be true to the line, and not given to skirt. The goodness or badness of nose could of course have been discernible when hunting their own game (the fox), to which, in our opinion, all fox-hounds should be entered. Beckford, we remember, speaks of his huntsman letting his puppies enter to a cat; but we cannot approve of such a practice. †

Early in the autumn Mr Meynell hunted his woodlands, Charnwood Forest chiefly, with his whole pack, and then divided them into "the old" and "the young pack;" but, to show the disadvantage of this system, Mr Hawkes says, "the young hounds were hunted twice a week, as much in woodlands as possible, and in the most unpopular districts." The present plan of mixing young and old hounds together is far preferable to this, not only as they can then take their turn in the good and popular "districts," but, by having the assistance of older hounds in chase, the younger ones are less likely to do wrong.

Mr Meynell's idea of *perfection* in hounds, in chase, Mr Hawkes says, "consisted of their being true guiders in hard running, and close and patient hunters in a cold scent, together with stoutness." Their imperfections, "over-running the scent, and babbling, were considered their greatest faults." To all this every sportsman must assent.

The following passage contains perhaps rather more of

Hunting. enthusiasm than of fact, although a qualification is given to it in the concluding sentence. "Mr Meynell's hounds," says Mr Hawkes, "were criticised by himself and his friends in the most minute manner. Every hound had his peculiar talents, and was sure to have a fair opportunity of displaying them (!) Some had the remarkable faculty of finding a fox, which they would do, almost invariably, notwithstanding twenty or thirty couple were out in the same covert. Some had the propensity to hunt the doubles and short turns. Some were inclined to be hard runners. Some had a remarkable faculty of hunting the drag of a fox, which they would do very late in the day. And sometimes the hardest runners were the best hunters; and fortunate was the year when such excellencies prevailed."

"Mr Meynell," continues Mr Hawkes, "prided himself on the steadiness of his hounds, and their hunting through sheep and hares, which they did in a very superior manner. He seldom or never attempted to lift his hounds through sheep; and from habit, and the great flocks the hounds were accustomed to, they carried the scent on most correctly and expeditiously, much sooner than any lifting could accomplish." We are far from advocates for lifting hounds when it can be avoided; but knowing the so often insurmountable difficulties occasioned by flocks of sheep and herds of cattle in the country Mr Meynell hunted, in addition to a crowd of horsemen pressing upon the heels of the pack, we consider that, if, under such circumstances, hounds do not almost instantly recover the scent, the assistance of the huntsman is called for. The "steadiness and docility" of Mr Meynell's pack, we have reason to believe, were remarkable, and are vouched for by other authority than Mr Hawkes's. "A most extraordinary instance of discipline in hounds," says Colonel Cook (p. 202), "occurs to me, which I ought to have mentioned when speaking of that unrivalled sportsman the late Mr Meynell. He met in the Market Harborough (Leicestershire) country, at a small patch of gorse on the side of a hill, in a very large pasture field: the hounds feathered as they went in, and found instantly. The covert being only about two acres, and open, Mr Meynell immediately saw that the fox was in danger of being chopped; he therefore called out to Jack Raven, the huntsman, "Jack, take the hounds away;" and, at one of his usual *rates*, every hound stopped, and the pack were taken to the hedge side, when Mr Meynell called out three steady hounds, and threw them into the cover. The fox was so loath to break, that the three hounds kept hunting him for ten minutes, in the hearing of all the pack, who lay perfectly quiet at Raven's horse's feet, till the fox went away over the finest part of the country; and the moment Mr Meynell gave his most energetic, thrilling holloo (Mr Hawkes speaks of the power of Mr Meynell's cheering holloo, which, he says, "thrilled through the heart and nerve of every hearer"), every hound flew to him; the burst was the finest that any sportsman ever beheld, and after an hour and ten minutes they killed their fox." This is doubtless an astonishing instance of command of hounds with a scent before them, particularly so to those persons who are aware of the generally uncontrollable power of the impulse given to them by nature at that particular time; and were it not for the high reputation of the pack alluded to, we should, as we cannot doubt the fact, be inclined to say, it savoured a little of slackness, or, at all events, of a too severe discipline, bordering upon the annihilation of the distinguishing natural properties of the fox-hound, namely, high mettle and dash.

"Mr Meynell," adds Mr Hawkes, "was not fond of casting hounds; when once they were laid upon the line of scent, he left it to them; he only encouraged them to take pains, and kept aloof, so that the steam of the horses could not

Hunting. interfere with the scent. It is true, hounds should not be cast, if they can do the work themselves; and if the authority of Mr Meynell could restrain a Leicestershire field of horsemen to keep aloof when his hounds were at check, more time may have been given them to make their own cast; but it must be recollected that, when the hounds are at fault, the fox is not." Again, "when his hounds came to a check, every encouragement was given to them to recover the scent, without the huntsman getting amongst them, or whippers-in driving them about, which is the common practice of most packs. The hounds were holloed back to the place where they brought the scent, and encouraged to try round in their own way, which they generally did successfully, avoiding the time lost in the mistaken practice of casting hounds at the heels of the huntsman. When the hounds were cast, it was in two or three different lots, by Mr Meynell, his huntsman, and whipper-in; and not driven together in a body, like a flock of sheep. They were allowed to spread, and use their own sagacity, at a very gentle pace; and not hurried about in a blustering manner. It was Mr Meynell's opinion, that a great noise, and scolding of hounds, made them wild. Correcting them in a quiet way was the most judicious method. Whippers-in also should turn hounds quietly, and not call after them in a noisy, disagreeable manner." In all the foregoing remarks we coincide with the opinions of these two celebrated sportsmen. We think a huntsman should never be nearer than from sixty to a hundred yards of his hounds when they first check; nor can a whipper-in execute his office of turning or stopping a hound at this moment too quietly and discreetly; but no general line of conduct for either the one or the other can be laid down. Some hounds, and especially if they have been pressed upon by horsemen, will not turn to either horn or holloo, without a smack of the whip, or at all events a *rate*; nor will the body of the pack, if a little blown, or excited by a previous holloo, always try for their fox so well and *quickly* as they should do, if left quite to themselves; or, as Mr Hawkes so properly expresses himself, if left to "their own sagacity." That a great noise makes hounds wild no one doubts, and the system of holloaing is every year on the decrease. As for the division of the pack into three lots when at fault, that perhaps originated with Mr Meynell; indeed we believe it did; but the practice is now become not uncommon, of its being divided into two, namely, one lot with the huntsman, and the other with the first whipper-in.

"When hounds are going to the cry," writes Mr Hawkes, "they should be encouraged in a pleasant way; not driven and rated, as if discord was a necessary ingredient in the sport and music of a fine cry of hounds. Whippers-in are too apt to think their own importance and consequence consist in shouting, holloaing, and unnecessary activity. When hounds can hear the cry, they get together sooner than any whipper-in can drive them. If any hound is conceited, and disinclined to go to cry, he should immediately be drafted."

On the subject of blood, that is, killing and eating foxes, we entirely assent to the following remarks: "Blood was a thing Mr Meynell was more indifferent about than most masters of hounds. The wildest packs of hounds were known to kill the most foxes in cover, but very seldom showed good runs over a country. Hounds chopping foxes in cover is more a vice than a proof of their being good cover-hounds. Murdering foxes is a most absurd prodigality. Seasoned foxes are as necessary to sport as experienced hounds." Our own opinion of the value of blood to hounds perfectly accords with that which, it appears, was entertained by Mr Meynell; namely, that it is far from a *sine qua non* to the well-doing of fox-hounds, or any other hounds, as is apparent at once from the mo-

Hunting. dern system of hunting the stag. If it be possible, the pack are not permitted to break his skin, much more to devour him; still, despite of the rating and flogging they get to prevent their injuring the object they are pursuing, they do pursue it to the last with all their might and main. But let it not be supposed that we set no value on what may be termed well-carried blood. On the contrary, we think the flesh and blood of a fox well found, and handsomely killed, by hounds in the moments of high excitement, must be very beneficial to them. But when chopped in a cover (generally the effect of accident, and not, as Mr Hawkes supposed, of vicious propensity in any individual hound), we consider a round of beef would be a more acceptable present to them; nor is the case much altered when a fox is dug out of an earth, after perhaps an hour's delay. We remember to have heard Mr Osbaldeston assert, that the best week's sport he ever had in Leicestershire when he hunted it, was after his hounds had been out nine days in succession without tasting a fox.

"Mr Meynell's natural taste," continues Mr Hawkes, "led him to admire large hounds; but his experience convinced him that small ones were generally the stoutest, soundest, and in every respect the most executive. His hounds had more good runs than any pack of his day. Two very extraordinary ones happened of a very rare description. One was a run of one hour and twenty minutes without a *check*, and killed their fox. The other was two hours and fifty minutes without a *cast*, and killed. The hounds in the first run kept well together, and only two horses performed it; the rest of the field were unequal to its fleetness. The other run alluded to was performed by the whole of the pack; and though all were up at the death, two or three slackened in their pace just at the last. One horse only went the whole of it."

Mr Hawkes thus speaks of the necessary qualifications of hounds to show sport:—"To obtain a good run, hounds should not only have good abilities, but they should be experienced, and well acquainted with each other. To guide a scent well over a country for a length of time, and through all the difficulties usually encountered, requires the best and most experienced abilities. A faulty hound, or injudicious rider, by one improper step, may defeat the most promising run." It is evident, from the above judicious observations, that an old-established pack of hounds must have great advantages over one of an opposite character.

We shall finish our extracts from this little pamphlet, which was merely circulated privately amongst the author's friends, but valued as from the pen of so eminent a sportsman as the late Mr Hawkes proved himself to be, both in the field and on the race-course, where he shone conspicuously as one of the best gentlemen-jockies of his day, with his judicious remark on the conduct of sportsmen who follow hounds. "Gentlemen, and every person who makes hunting his pursuit," says he, "should learn to ride judiciously to hounds. It is a contemplative amusement; and much good diversion might be promoted by a few regular precautions. The principal thing to attend to is, not to ride too near the hounds, and always as much as possible anticipate a check. By which means the leading men will pull their horses up in time, and afford the hounds fair opportunity to keep the line of scent unbroken. Sheep, cattle, teams at plough, and arable land, are all causes of checks. Thoughtless sportsmen are apt to press too much on hounds, particularly down a road. Every one should consider that every check operates against the hounds, and that scent is of a fleeting nature, soon lost, never again to be recovered."

The following is the concluding paragraph, affording a good specimen of the writer's enthusiastic love of fox-

Hunting. hunting, as also of a cultivated mind:—"Fox-hunting," he asserts, "is a manly and fine exercise, affording health to the body, and matter and food for a contemplative mind. In no situation are the faculties of man more displayed. Fortitude, good sense, and collectiveness of mind, have a wide field for exercise; and a sensible sportsman would be a respectable character in any situation in life. The field is a most agreeable coffee-house, and there is more real society to be met with there than in any other situation of life. It links all classes together, from the peer to the peasant. It is the Englishman's peculiar privilege. It is not to be found in any other part of the globe, but in England's true land of liberty; and may it flourish to the end of time!"

There is perhaps no part of the material of fox-hunting more interesting than the management of hounds in the kennel, which, we do not hesitate in saying, presents one of the most curious scenes that are anywhere displayed in the whole circle of the transactions of mankind with the inferior animal creation. To see sixty couples of those animals, all hungry as tigers, standing aloof in their yard (as is the practice in some kennels), and, without even hearing, much less feeling, the whip, not daring to move until the order is given to them to move. And what is the order given? why, at the words, "Come over, *Bitches*," or, "Come over, *Dogs*," every hound of each individual sex comes forward, as the sex it belongs to may be called for, leaving those of the other sex in their places. Then the act of drawing them to the feeding troughs is an exceedingly interesting sight. Often, with the door wide open, and the savoury meat in their view, the huntsman has no use for his whip, having nothing to do but to call each hound by his name, which of course he readily answers to. The expression of countenance, too, at this time, is well worthy of notice; and that of earnest solicitation, of entreaty, we might almost say of importunity, cannot be more forcibly displayed than in the face of a hungry hound awaiting his turn to be drawn. He appears absolutely to watch the lips of the huntsman, anticipating his own name. A view of a pack of fox-hounds likewise in their lodging-rooms, is a most agreeable sight to those who love to see animals in a high state of enjoyment, which no doubt hounds are when reposing on their well littered-down benches after a hard day's work, and with their bellies well filled. They absolutely appear to feel for each other's comforts, in placing themselves in situations that enable their fellow-creatures to repose parts of their bodies upon their own, to render their position for sleep and rest more agreeable to them.

The system of fox-hunting has been much changed since that sport commenced. Almost all foxes were once found by the drag, and the first challenge was loudly cheered in days when the game was scarce. A long drag, however, although a great test of *nose*, is by no means desirable, as, if it happens to be down wind, the fox takes the hint, and is off long before the hounds can hunt up to his kennel. It was nevertheless a fine feature in the sport, as the gradual increase of cry, the cheering hollows of the sportsmen, and the crash when the fox was unkenelled, contributed greatly to ennoble the scene, and created, as it were, two climaxes in a chase, when it ended in blood. But another disadvantage attended it. Hounds could not be depended upon, taking the average of scent, to hunt a drag that had become cold; so they were obliged to be out very early in the morning, which was not only disagreeable, as encroaching upon the sportsman's rest, but was coupled with the disadvantage, at all events with the risk, of finding a gorged fox, too full to run far, much less to run fast. The modern system does not require the drag, as woodland covers are comparatively small to what they used to be; gorse covers made for the

Hunting. purpose of holding foxes are easily accessible to hounds accustomed to draw them; and the game is in most countries so plentiful, that if a fox be not found in one cover, he is almost certain to be found in another, and that not far off. The consequence is, no more time is now lost in drawing two or three gorse covers, than the drag of one fox formerly occupied; neither did that always lead to a find. Moreover, at the present hour of finding, there is but little chance of unkennelling a gorged fox.

It is by some asserted, that what are called woodland foxes are stouter runners than those bred in the artificial gorse and other covers, and we have good reason to believe they are so. But the great objection to large woodlands is the uncertainty of getting a run, from the difficulty of making foxes break from them, as they naturally hang to places which appear to afford them security; and it often happens that hounds, and the horses of the servants, have done a fair day's work before the run begins. On the other hand, we admit that a fox found in a wood of considerable extent is more likely to show a decidedly good day's sport, than one found in an artificial cover, and for this reason: he slips away unperceived, eight times out of ten, and consequently has time to look about him, and make his points, ere the chase commences; whereas a fox viewed away from a small gorse cover, within sight of a hundred or two of horsemen, is bullied, frightened, and soon blown, which occasions him to run short; and, of course, if the scent serves, and the hounds are good, he cannot live long, half an hour being as much as can be calculated upon under such circumstances. Gorse covers, however, if not too small,—not under three or four acres,—are indispensable in a hunting country, as foxes are very fond of them for their security against any thing but fox-hounds; and another great advantage attending them is, that they can be placed wherever it may be thought desirable to place them.

The making of gorse covers requires no small attention, we had nearly said *skill*. The ground is all the better for being trenched to the depth of from a foot to a foot and a half, and it should be made as clean and in as good condition as if it were to be the seed-bed of turnips. The seed should be minutely examined, as it often fails from having lost its germinating properties; and it should be drilled in the ground, and hoed, after the manner of a turnip crop. By keeping it clean by the hoe, it will, if the seed be good, *and the land dry*, often hold a fox in the second year, but will seldom fail in the third. Some writers, Colonel Cook among the number, speak of broom being sown amongst gorse. This should never be, as all huntsmen who draw, or run through, broom covers, can vouch for their being decidedly inimical to scent. A novel description of fox-cover came into fashion a few years back in Leicestershire, but is not highly approved of, from the difficulty hounds experience in drawing it. Strong black thorn stakes are driven into the ground endways, at a small distance apart, and the rank grass and weeds growing rapidly over, and entwining with them, form a strong cover the first year; and it is found proof against a fall of snow, which gorse covers are not, and are often forsaken by foxes on that account. All artificially-made covers should be not nearer than half a mile at the least to any house or village; and if on a gently sloping bank, facing the south, foxes will like them better.

Some sportsmen object to many rides being cut through covers, as they are so often the cause of foxes being headed by the horsemen. The objection in part holds good; but a certain number of rides are necessary in all large covers, to enable the servants to get near their hounds, who might otherwise be disposed to run riot, as they soon discover when they are out of the reach of either rate or whip. Woodlands, with rides in them, are essential to the

Hunting. making of young hounds in all countries; and the finest in England are those of the Duke of Buccleuch, near Kettering in Northamptonshire, within the limits of the Pytchley Hunt, with rides, or, speaking more properly, avenues in them, to the extent of upwards of fifty miles.

When speaking of the disadvantages of large woods, in which foxes are apt to hang or dwell, Colonel Cook recommends killing a fox, and letting the hounds eat him, in the middle of them; which we believe will generally have the desired effect. On the other hand, should a fox be killed in a small cover, he should, if possible, be carried out of it before the hounds break him up, for reasons which are obvious from the foregoing remark.

The arrangement of earths, and the stopping of them, are matters of no small importance in a hunting country. Artificial ones are sometimes made, but they are reckoned unhealthy for foxes; and the best are those made by badgers, which can always be commanded at pleasure, by turning out those animals in pairs. On the proper and careful stopping of earths every thing depends; for nothing can be more annoying to sportsmen than to have their fox get to ground, just as the hounds have well settled to the scent of him, with every prospect of a run. There are various methods of stopping earths, but none more secure than by a bunch of gorse, or furze, crammed well into the mouth of them, with the stalks pushed inwards. When earths are only slightly stopped, a fox will scratch his way into them; and as this very often happens, it shows the necessity of a careful and experienced earth-stopper; and we agree with Colonel Cook in thinking it better to pay for each day's stopping, rather than annually in the lump, reserving the power to withhold payment in case of evident neglect. The expense of earth-stopping varies according to the nature of the soil, covers, &c.; but in certain countries it amounts to as much as L.200 per annum. It may also surprise some persons to hear, that the rent paid for artificial covers, that is, for the land on which they are made, in one hunt alone, in Leicestershire, amounts to upwards of L.700 per annum.

The following calculations of the expenses of a pack of fox-hounds, varying, of course, with the extent of them, are given by Colonel Cook, and admitted to be very near the mark; making allowance for the difference in the price of markets at the time he made them, and at others.

For hounds hunting twice a week:—

Six horses, including groom and helpers.....	L.300
Hounds' food, for 25 couples.....	150
Firing.....	30
Taxes.....	80
Whipper-in and feeder.....	140
Earth-stopping.....	50
Saddlery.....	40
Farriery, shoeing, medicine, &c.....	50
Young hounds purchased, and expenses at walks...	60
Casualties.....	100
	L.1000
A second whipper-in, and two horses in addition...	170
	L.1170

Expenses for three times a week:—

Twelve horses, groom, helpers, &c.....	L.600
Food for forty couples of hounds.....	220
Firing.....	40
Taxes.....	100
Two whippers-in and feeder.....	210
Earth-stopping.....	65
Saddlery.....	80
Farriery, shoeing, &c.....	80
Young hounds purchased, and expenses at walks...	80
Casualties.....	150
	L.1625

Hunting. Expenses for four times a week :—

Fourteen horses, &c.....	L.700
Hounds' food for fifty couples.....	275
Firing.....	50
Taxes.....	120
Two whippers-in and feeder.....	210
Earth-stopping.....	80
Saddlery.....	100
Farriery, shoeing, &c.....	100
Expenses of greyhounds purchased, and at walks...	100
Casualties.....	200

L.1935

"If you do not attend to the kennel department yourself," adds the Colonel, "but keep a huntsman, the expense will be at least L.300 more."

The only remark we have to offer on the foregoing calculations is, that the author does not allow a sufficient number of hounds for the several days' hunting in the week. For example, we venture to say, that no country could be hunted four times a week with fifty couples of hounds; at all events, fifty couples of hounds equal to that work are very rarely to be found. We agree with the writer, that either four times a week, or even twice, are preferable to three, for keeping hounds in regular work, when sound. But on the subject of expenses we have a word or two more to say. Knowing, as we do, that they generally, we believe we may add always, exceed the calculations made by Colonel Cook, and in some instances by double, we consider it rather inconceivable that, in the present depressed state of land property, either noblemen or private gentlemen should be expected or permitted to bear all the charge of hunting a country themselves, knowing, as we do, the great sacrifices of property and income that have already been made to a perseverance in keeping fox-hounds, unassisted by a subscription. But this cannot go on much longer; nor indeed is it, with some exceptions, fit that it should; and, in support of our assertions, we will quote the sentiments of a writer on this subject, admirably well expressed, in a late number of the *New Sporting Magazine*.¹

After hinting at the probable decline of a sport, from this cause alone, which Mr Burke described as "one of the balances of the constitution," he thus proceeds:—"As to the total abolition of the sport, we anticipate no such event. It is the favourite sport of Englishmen; and that which a man likes best he will relinquish last. Still, with the exception of countries that boast their Cleveland, their Yarboroughs and Suttons, their Graftons, Beauforts, Rutlands, Fitzwilliams, Segraves, Middletons (his lordship is since dead), and Harewoods—their great and sporting noblemen, in fact—we feel assured that, unless something be speedily arranged, half the packs in England must either be curtailed of their fair proportion of sport, or abolished altogether. This is not as it should be. Men are as fond of hunting, at least of riding to hounds, as ever; but though we feel that we may be telling a disagreeable truth to many, the fact is, that most men want to hunt for nothing. The day for this, however, is fast drawing to a close. The breed of country gentlemen who keep hounds—the Ralph Lambtons, the Farquharsons, the Assheton Smiths, the Villebois and Osbaldestons—are fast disappearing, in all probability never to be renewed. True that it is a fine, a proud sight, to see an English country gentleman spending his income on his native soil, and affording happiness and amusement to his neighbours, receiving their respect and esteem in return; but we cannot help feeling, that unless a man has one of those overwhelming incomes that are more

frequently read of than enjoyed, it is hardly fair that the expenses of a sport which affords health and recreation to hundreds should fall upon his individual shoulders. Heirs at law will not be hindered by the remoteness of relationship from impugning the conduct of their ancestors; nor will it be any consolation to a son, on coming into possession of an overburdened estate, to know that the difficulties which oppress him were incurred for the purpose of keeping a pack of fox-hounds, by which his father afforded amusement to the country." It may here be not unappropriately added, that at the time the above was written (February 1834), three of the best hunting countries in England were vacant, viz. the Quorndon in Leicestershire, the Pytchley in Northamptonshire, and the Oakley in Bedfordshire.

Fox-hunting is a sort of prescriptive right, which England has claimed from a very early period; and, more than this, it has long been considered that the common law allowed persons to enter the lands of another in pursuit of a fox, the destruction of which was presumed to be a public benefit. This opinion was founded on the celebrated case *Grundy v. Feltham* (1, *Term. Reports*, p. 334); but in that of *Earl of Essex v. Capel*, Summer Assizes, 1809, the legality of hunting foxes over the land of another is rendered very questionable. This being the case, it is a great compliment to the sport, as no doubt injury of land to a certain amount, though small, is occasioned by it, that it is permitted to the extent to which we see it, in every county in Great Britain; and that an action of trespass is an unusual occurrence, must be considered as still more creditable to the yeomanry and tenantry who live by the occupation of land. On the other hand, however, it must be remembered, that the produce of land is very considerably enhanced by the great demand, as well as extra prices given, for hay, corn, and straw, as likewise by the encouragement to breeding horses; and that, wherever there is a colony of fox-hunters, it is accompanied by a great influx of money, which is expended in the immediate neighbourhood.

There were formerly three established classes of hunting in Great Britain, each of which had advocates, as it may have been suitable to situation, fortune, time of life, &c.; and although the struggle for superiority has ended in favour of that of the fox, we have reason to believe, that since what are termed "*packs of hounds*" have been established, hunting the stag or buck claims precedence of the hare; the hare of the fox; the otter, perhaps, of all. We will then offer a few more remarks upon them, as we have ranked them here.

Since the stag has ceased to be drawn for, and found in his native majesty, and hunted as a wild animal, "stag hunting" has lost all its interest with the sportsman; and when we say that the chase of no other animal is, after all, from first to last, so full of interest as that of the stag, the sportsman has some cause for regret. But wild-stag hunting could not have remained one of the popular diversions of Great Britain, for two sufficient reasons. First, from the country being so generally cleared of wood, there would have been a great scarcity of game; and, secondly, from the circumstance of the stag being, by his nature, unfit to be hunted during some of the months that sportsmen like to be on the field. The act of harbouring the deer, however, must be considered as amongst the very highest branches of the sportsman's art, and one which none but a well-practised sportsman could perform. Neither was the hunting to death of the wild stag by any means so easy a task as might be supposed, from the bulk of the animal, which it must be proportionally difficult for him to conceal. On the contrary, like

¹ No. xxxiv. vol. vi.

Hunting. the harts of Meandros, flying from the terrible cry of Diana's hounds, the "wise hart," or *cerf sage* as he is termed in ancient hunting, knows how to foil hounds perhaps as well as, or better than, most other wild animals, and is allowed to consult the wind in his course more than any of them. It is also said of him, that he will, when pursued, rouse other deer from their lair, to induce the hounds to run counter, or change; and his device of taking soil, with nothing but the nose to be seen above the water; running down a stream, and seeking for a hard and dry road when pressed; are facts too well established to require comment. But, after all, the subtilty of man in harbouring a deer, and knowing beforehand its age, sex, and size, by the slot and other distinguishing marks which it leaves behind it as it traverses its native forests, is more conspicuously displayed than in any other department of the chase, and is a most satisfactory illustration of "the dominion given to man over every living thing that moveth upon the earth." We shall then dismiss this part of our subject with the remark, that although, properly speaking, the diversion of hunting the stag is totally extinct in Great Britain, we can vouch practically for the fact, that there is not a nobler sight in nature than that of a full-headed stag roused from his lair by hounds, and majestically trotting before them, snuffing the air as he goes, and appearing to care little for his pursuers, from confidence in his natural powers. That these powers are great, all modern stag-hunters are satisfied of; and those of endurance, when chased, are allegorized in the fable of the Mænalaean stag, the running down of which is said to have occupied Hercules for a year, and was in consequence counted amongst the labours of that hero. That deer are superiorly winded animals, is apparent by the immense height they can leap, just before they die from bodily exhaustion; and it may be accounted for by their being furnished with *two* spiracles, or breathing places, one at the corner of each eye. Oppian, the Greek poet, must have supposed, by the following line, that they had *four*.

"Τετραδύμοι ἴσως, πνεύρες ὄντες διὰ τοῖς,"

which was a mistake of the sporting bard; and some writers have made Aristotle say, that goats breathed at their ears, whereas he directly asserts the contrary. The classic writers, however, as well as our own poets, have taken some of their most beautiful similes from the chase of the deer; for example, Virgil's comparing the flight of Turnus to a stag trying to escape from the toils; and the death of the favourite hind by the hand of the young Iulus, a master-piece of pastoral poetry. But the death of the stag has been a favourite theme of our own poets; and both Shakspeare and Thomson have been equally happy in their description of the last moments of the antlered monarch of the forest, the latter particularly:

....."He stands at bay,
And puts his last weak refuge in despair.
The big round tears run down his dappled face:
He groans in anguish; whilst the growling pack,
Blood-happy, hang at his fair jutting chest,
And mark his beauteous chequer'd sides with gore."

The following account of hunting the wild stag in Devonshire, but now nowhere to be seen in England, is from one of Nimrod's Tours, in 1824:—"The amusement of stag-hunting appears to be of ancient date in the county of Devon. For many years previous to 1775, the North Devon stag-hounds were kept in a style almost amounting to magnificent, by the then Sir Thomas Acland, Bart., when Colonel Basset took them and kept them to the year 1784. At that period the late Sir Thomas Acland became master of them, and kept them to the year 1793, when Colonel Basset took them again, at his own expense, and hunted them to the year 1801 inclusive; when ill health obliging him to part with them, he gave away all but six couples

and a half to Lord Soules. In 1802 Lord Fortescue revived them, by receiving from Colonel Basset the six couples and a half he had reserved, and kept them for that year. In 1803 they were first kept by subscription by Mr Worth, who continued at the head of them till 1810. In 1811 Lord Graves became master of them, also by subscription; but in the spring of 1812 Lord Fortescue determined upon keeping them at his own expense, which he did for seven years, when they were once more established by subscription; and since the year 1819 have been managed by Mr Lucas, who still continues at their head."

The next year after Nimrod visited them, they were given up; but we give the extracts from his account of two days' diversion with these hounds, on each of which they found a "warrantable" deer. Speaking of the first, he says, "When we arrived within half a mile of the covert in which a stag was harboured, the hounds, till then in couples, were put into a stable, when the celebrated Joe Faulknor, one of the whippers-in, was despatched with two couples of old hounds, for the purpose of rousing the game. One of these, a hound called Leader, was shown to me as a sample of a perfect stag-hound; and they were both said to be so steady, and to know a rate so well, that they will stop if a wrong (not a warrantable) deer be found, and will draw again. It was some time after Joe had got his tufters into covert before we heard any thing but an accidental note from his melodious pipe, which is certainly pitched in the right key. During this interval of suspense, for, as the poet sings,

....."The blood more stirs
To rouse a lion than to start a hare,"

a farmer rode up with a piece of a stick in his hand, which was cut to the size of a *slot* he had found in a neighbouring wood. On my measuring it by my hand, I found it to be four inches in length, which, exceeding the usual length, showed it to be the slot of an old and very large stag." He then proceeds to relate that the harboured stag was roused, but afforded very little sport, on account of the extreme badness of the weather, and total want of scent. Of the find on the second day he thus speaks:—"The stag lay 'close couched,' or he must have been found before. We stood on an eminence which overhung the covert, and therefore could command a view of it. A long silence had prevailed, and we began to wonder what had become of Joe and his tufters, when all on a sudden a holloa was heard, and a hound threw his tongue:

"The deep-mouthed blood-hound's heavy bay
Resounded up the rocky way;
And faint, from further distance borne,
Were heard the clanging hoof and horn."

The rouse, it seems, had taken place in a small covert, a short distance below us, and we could see a stag of noble size, with branching antlers, trotting majestically along in a small opening between two woods, apparently paying little attention to the old hounds behind him. Indeed, at one time, so far from verifying the words of a poet, that *pedibus timor addidit alas*, he very coolly broke into a walk, as much as to say, 'I value you not;' but the staunch old tufters getting nearer to his haunches, obliged him to quicken his pace; and, to the great joy of all present, he put his head straight for a moor twelve miles across." But this is a subject for poetry; and it is impossible to read even the foregoing short account of rousing the deer with hounds, without calling to our recollection the beautiful lines of the Scottish bard in the *Lady of the Lake*, so strictly true to nature:—

"The antlered monarch of the waste
Sprang from his heathery couch in haste;
But ere his fleet career he took,
The dew-drops from his flanks he shook;

Hunting.

Like crested leader proud and high,
Tossed his beamed frontlet to the sky ;
A moment gazed adown the dale,
A moment snuffed the tainted gale ;
A moment listen'd to the cry,
That thicken'd as the chase drew nigh ;
Then, as the headmost foes appear'd,
With one brave bound the copse he clear'd,
And stretching forward free and far,
Sought the wild heaths of Uam-Var."

Nimrod relates a few incidents connected with this day's sport, peculiar to hunting the deer. "I had," says he, "in this run, an opportunity of witnessing a circumstance peculiar to stag-hunting, and that is, *hunting in water*. Our deer beat down a river for about half a mile, the hounds following him by scent, which we might wonder how they could avail themselves of in so chilling an element as a rapidly-flowing stream. This, I think, may be called one of the master-pieces of natural instinct." Again, "Our stag once sank in Bremridge Wood, when he was fresh found; and the crash of those deep-tongued hounds at the time was very fine indeed. I was in hopes we should have viewed him in Castle Hill Park, but we were just too late. When he broke out of the park, he took a ring through some of the neighbouring coverts; when skirting it again, he returned to the place where he was found, and was killed at Bragford, a short distance beyond. He was once what is called 'set up' in the water, where he sank; but breaking out again, he was pulled down by the pack; and when one of the field went up to him to cut his throat, his eye was glazed. He was as fine a stag as ever was seen. He had brow, bay, tray, three on top on one horn, and two on the other; and the weight of his haunch was thirty-nine pounds." Nimrod laments the want of the French horns that formed part of this establishment, but which, some time before his visiting it, were done away with. The *recheat* and the *mort* were wanting to make the thing complete.

A kind of technological dictionary is required to almost all sports of flood and field. Of the technical terms in deer-hunting Nimrod thus speaks:—"What we fox-hunters call the ball or pad of a fox on foot, they term the 'slot.' We drag up to a fox; they draw on the slot, or walk up a deer. We find or unkennel a fox; they rouse or unharbour a deer. A fox runs up and down a cover; a deer beats up or down a covert, or a stream. With us, a fox is headed (turned back, or driven from his point); with them, a deer is blanché. We say, a fox stops or hangs in a cover, in a run; they say, their game sinks. We recover our fox; they fresh find their deer. We run into (kill) our fox; they set up the deer. The fox is worried; the deer is broken up. The fox goes a clicketting; the deer goes to rut. The fox barks; the stag bellows. The billiting (excrement) of the one is termed the feument or feumishing of the other. The brush of the fox is the single of the deer. The mask of the fox is the snout or nose of the deer. The view, the foil, the tally-ho, and who-whoop, are common, I believe, to all; but currant jelly and sweet sauce are not in the fox-hunter's vocabulary." "There are some expressions here," continues Nimrod, "which require farther explanation than I am able to afford them; and it is almost presumptuous in me, without any assistance at hand, to attempt giving an opinion on the subject. The word 'harbour,' however, is one of common acceptance, and implies a place of refuge. To unharbour a deer has long since been settled by Pliny: '*Excudere feram cubili*.' The expression is clear, and falls smoothly on the ear. Not so with 'taking soil;' it savours of filth, and is only applicable, in this sense, to a hog delighting, in the summer months, to wallow in mud or dirty water, previously to going to his bed. To 'beat up and down' is only another way of expressing to run to and fro, and is found in Terence, in the word *curso*. The deer

being 'set up,' can only be in allusion to his having his throat cut; for Cicero speaks of a man being 'set up' to have that pleasant operation performed:—'*In cervicibus imponere dominum*.' The stag roused from his lair has certainly a great superiority over unkennelling the fox. The latter is tame and puny, whereas the former is bold and classical, and quite in association with the wildness of the forest, of which this animal is the monarch. The lair is but another word for the den; as we read in Virgil's celebrated contrast of a town and country life, in which he so beautifully describes the manly pursuits of the latter; and likewise in the hunting scene with Dido and Æneas. The word *feument* I never heard before, but conclude it is derived from the Greek word *φύμα, recrementum*."

The following is Nimrod's description of a full-headed deer. "A perfect head, I find, consists of brow, bay, tray, and three on top of each horn; but some have brow, bay, tray, and five on each horn, though these are rare."

Of the powers of endurance of a deer before hounds, as also of his subtilty in foiling them, the same writer thus speaks: "When we reflect on the powers of a stag, and look at his qualities for speed, we cannot be surprised that, when not overlaid with flesh, or a 'heavy deer,' as he is then called in Devonshire, he should afford some extraordinary chases. The following well-authenticated facts will speak to their powers of locomotion: 'When Sir Thomas Acland kept the hounds, a farmer in the neighbourhood of Holnicote House saw a stag one evening in his fields, with a particular spot on his side. The next morning he met this same stag running in great distress, with the hounds close at his haunches, and he soon afterwards sank before them. On his asking Sir Thomas where he had found him, he learnt that it was twenty-five miles, as the crow flies, from the place where he was killed. He must therefore have travelled that distance in the course of the previous night.' " Again, on the power of leaping, which we have already noticed, and particularly in allusion to their wind, when otherwise much distressed, we find the following remark: "On my return from hunting on the preceding Tuesday's hunting," says Nimrod, "I was shown a leap, in Lord Fortescue's park, which a hind had taken last season before this pack, after a long run, and not ten minutes before she sank before them. What makes it more extraordinary is, that, on being paunched, a calf was taken from her almost able to stand. The fence was a stone wall, with a rail on the top of it, not to be broken; and your readers may judge of its height from the following statement, having had no other means of measuring it: My own height is five feet nine inches; the horse I rode is fifteen hands two inches high; the top of the fence was upwards of two feet above the crown of my hat; and it was up a steep bank that she approached it. The stag we ran went up to this fence, but did not attempt to leap it."

The natural history of the stag will be given in due course; and we now dismiss the subject of stag-hunting with the remark that, although, from the adverse circumstances attending it in a country like Great Britain, so generally free from large tracts of woodlands, which the red deer delights in, and also so much intersected with streams, real stag-hunting can never be again reckoned amongst the popular diversions in England, a good substitute for it is found in the turning out deer before fox-hounds in the neighbourhood of the metropolis, which has the advantage of affording a certainty of something in the shape of a run, and frequently very long ones, to persons whose time is precious, as well as the opportunity of, in a great measure, selecting the country best suited to the habits and propensities of the game. There are a number of stag-hunting establishments in England, and there has been a royal establishment of this nature throughout several successive reigns. In that of George III. stag-hunting was in high re-

Hunting.

Hunting. pute amongst the nobility and gentry forming the court, as well as of others residing in its neighbourhood. Mr Beckford said little about it, because he knew little: the reason he himself gives; but the following expression in his book relating to it made a deep impression on fox-hunters, who reluctantly acknowledge its truth. "Could a fox-hound," says Mr Beckford, "distinguish a hunted fox, as the deer-hound does the deer that is blown, fox-hunting would be complete."

The roe-buck has partaken of the same respite from the chase as the wild red deer, although by the old laws of the forest he was not considered as venison until hunted; and, according to Cæsar, the Britons did not eat this animal at all. The fact is, the roe-buck runs so short, after the first ring, that he is said to hunt the hounds, instead of the hounds hunting him; an artifice by which he hopes to elude his pursuers, as, of course, it must produce a confusion of scents. Neither does his cunning end here. When closely pursued in a thick wood, he will bound to one side of a path by a sudden spring, and, lying close down upon his belly, permit the hounds to pass by him without offering to stir. But the beauty of form and elegance of motion of the "favourite roe," which Solomon has made an emblem of connubial attachment, ought to protect it from the chase, although they do not appear to have done so in the country in which Solomon wrote, as he recommends to the man who has engaged to be surety for his neighbour, to deliver himself "as a roe from the hand of the hunter, and as a bird from the hand of the fowler." There has been only one pack of roe-buck hounds kept in Great Britain, and that was by a gentleman of the name of Pleydell, of Whatcombe House, near Blandford, Dorsetshire, lately deceased, in whose covers these animals abounded, as they also do in various parts of Scotland.

Hunting the *otter* was a sport much thought of in England, and is of very early date, chiefly perhaps for the great value formerly set on fresh-water fish, previously to that of the sea being so generally available throughout the country as it has been within the last hundred years, and continues to be still more so. The system of hunting the otter is this: The sportsmen go on each side of the river, beating the banks and sedges with the hounds. If there be an otter near, his "seal" (foot) is soon traced on the shore; and, when found, he is attacked by the sportsmen with spears, when he "vents," that is, comes to the surface of the water to breathe. If he be not soon found by the river side, it is conjectured he is gone to "couch" inland, for he will occasionally go some distance from his river to feed. He is traced by the foot, as the deer is; and when found, and wounded in the water, he makes directly for the shore, where he maintains an obstinate defence. He bites most severely, and does not readily quit his hold; on the contrary, if he seizes a dog in the water, he will dive with him to the bottom of the river, and will never yield to him whilst he has life. This sport is still pursued in the few fenny and watery districts that now remain in England, and has for a long time been confined principally to those parts where, from local circumstances, the other more noble and exhilarating distinctions of the chase cannot be conveniently enjoyed. An attempt, however, has been recently made to revive it, by a celebrated Oxfordshire sportsman, Mr Peyton, only son of Sir Henry Peyton, Bart., of which attempt we subjoin an account, extracted from the *Oxford Journal*. By this, two facts are established; the one, that otter-hunting spiritedly pursued is not a tame diversion; and the other, that the charge against this animal of destroying young lambs and poultry, is not altogether unfounded.

"We have great pleasure in informing our readers, that a novelty in the sporting world, as far as relates to this county, has recently been introduced by that ardent and

Hunting. indefatigable sportsman, Mr Henry Peyton, namely, a pack of those rare animals, otter-hounds, with which he hunts the country in the neighbourhood of Bicester; so that these midnight marauders and inveterate enemies of the finny tribe, which are numerous in the Cherwell, and streams near Rousham and North Aston, will not repose as heretofore in uninterrupted security. Mr Peyton hunts the pack himself, assisted by a very powerful auxiliary in the person of Viscount Chetwynd. These gentlemen start with their otter spears ere the day breaks, and at half-past five in the morning they may be seen two or three times a week wending their way on foot along the banks of the river, in pursuit of the 'furry varmint.' The pack has had some very excellent runs, one of which continued a distance of twenty-five miles, having been found in the river Cherwell, near to Flights Mill, and hunted through all the turnings of that serpentine stream to his lodgings at Watereaton, where he took refuge amongst the old willows, and succeeded in baffling his pursuers; subsequently to which a capital day's sport was afforded at North Aston. The hounds found near the mill, and went away in the direction of Nell Bridge; but twisting into the Adderbury Brook, after a chase of about eight miles, he was come up with, when some hard fighting occurred, in which a small terrier, bred by Mr Peyton, greatly signalized himself, being much punished, as indeed were all the hounds, from the determined ferocity of the otter, which was ultimately speared by Mr Peyton. It turned out to be a fine bitch otter, weighing upwards of twenty pounds, and, from the appearance of the dugs, it was conjectured that some of her family were in the vicinity, and consequently the hounds were again laid on, and finally succeeded in killing four fine cubs, weighing on the average eleven pounds each. The farmers of the neighbourhood who were up at the death were quite overjoyed, and nothing would satisfy them but the immediate cutting up of one of the cubs 'à la reynard,' and a distribution of the pads, head, and body, amongst them. It is said that these amphibious fish-merchants, when suffering hunger by reason of a scarcity of fish, will boldly in the season carry away young lambs; so that the farmers, independently of their stream being pilfered of fish, often sustain a more substantial injury, and therefore are much gratified at the opportunity now afforded of in some degree thinning the numbers of these voracious gluttons."

The otter-hound is not a distinct kind of hound, the strong rough-haired harrier answering the purpose best, provided he will hunt a low scent, as the game shows no small sagacity, as well as circumspection, in guarding against assault from man or dog. In 1796, on the river Worse, near Bridgenorth, Shropshire, four otters were killed, one of which stood three, another four hours before the hounds; and in 1804 the otter-hounds of Mr Coleman of Leominster, Herefordshire, killed an otter in a mill pond, which is said to have weighed thirty-four pounds and a half; supposed to have been eight years old, and to have consumed a ton of fish or flesh annually, for the last five years. It will be observed, in the list of hounds, there are three more packs kept in England for the purpose of hunting the otter.

Hare-hunting claims precedence of fox-hunting in the sporting chronology of Great Britain, and we believe of all other countries, inasmuch as a hare has always been esteemed excellent eating, and a fox the rankest of carrion. We gather from Xenophon that it was practised before his day, and he wrote fully upon it above three centuries before Christ, both hounds and nets being then used in the pursuit. Neither can we marvel at hare-hunting being the favourite diversion in all nations given to sporting where the use of the horse in the field had not become common. But we will go a point farther than this, and assert, that

Hunting. how inferior soever may be the estimation in which hunting the hare is held in comparison with hunting the fox, no animal of the chase affords so much true hunting as she does, which was the opinion of the renowned Mr Beckford.

In our description of the modern harrier (see article HOUND); we have termed him the fox-hound in miniature; and we may apply the simile to hare-hunting, which now, as long as the chase lasts, greatly resembles fox-hunting, only on a minor scale. In the modern system, there is no tracking to the seat with the one, any more than dragging up to the kennel with the other; but both animals are now chiefly stumbled upon by accident, and instantly fly for their lives. With the system of hunting also has the kind of hound been altered; there being now no longer occasion for that nice distinction of scent which was wanting to be a match for the windings and doublings a hare was able to make in her course when hunted by the slow and fastidious southern hound, and which was essential to the finding her at all, in countries where hares were scarce, by the perplexing means of a very cold trail. In fact, we do not think we can better elucidate the gradual but great change that has taken place in this highly popular and ancient British diversion, than by the following extracts from a very old work upon sporting called the *Gentleman's Recreation*, published nearly two centuries back.

"Your large, tall, and big hounds," says the author, "called and known by the name of the deep-mouthed or southern-mouthed hounds, are heavy and slow, and fit for woodlands and hilly countreys; they are of deep mouths, and swift spenders; they are generally higher behind than before, with thick and short legs, and are generally great of body and head, and are most proper for such as delight to follow them on foot, as *stop-hunting*, as some call it; but by most it is termed 'hunting under the pole;' that is, they are brought to that exactness of command, that, in their hottest scent and fullest chase, if one but step before them, or hollow, or but hold up or throw before them the hunting pole, they will stop at an instant, and hunt in full cry after you at your own pace, until you give them encouragement by the word of command; which much adds to the length of the sport and pleasure of the hunters, so that a course oft-times lasts five or six hours.

"Opposite to the deep-mouthed or southern hound are the long and slender hounds called the fleet or northern hound, which are very swift, as not being of so heavy a body, nor hath such large ears: these will exercise your horses, and try their strength; they are proper for open, level, and champain countreys, where they may run in view and full speed; for they hunt more by the eye than the nose, and will run down the game in an hour, and sometimes in less; that is, a *hare*; but the fox will exercise them better and longer.

"Between these two extremes there are a middle sort of dogs, which partake of both their qualities, as to strength and swiftness, in a reasonable proportion; they are generally bred by crossing the strains, and are excellent in such countreys as are mixt, viz. some mountains, some enclosures, some plains, and some wood-lands; for they will run through thick and thin, neither need you help them over hedges, as you are often forced to do by others.

"A true right-shaped deep-mouthed hound should have a round thick head, wide nostrils, open and rising upwards, his ears large and thin, hanging lower than his chaps; the flews of his upper lips should be longer than those of his nether chaps; the chine of his back great and thick, strait and strong, and rather bending out than inclining in; his thighs well trussed; his haunches large; his fillets round and large; his tail or stern strong set on, waxing taperwise towards the top; his hair under his belly rough and long; his legs large and lean; his feet dry and

Hunting. hard, with strong claws and high knuckles. In the whole, he ought to be of so just a symmetry, that when he stands level you may not discern which is highest, his fore or hinder parts.

"For the northern or fleet hound, his head and nose ought to be slenderer and longer, his back broad, his belly gaunt, his joynts long, and his ears thicker and shorter; in a word, he is in all parts slighter made, and framed after the mould of a greyhound.

"By crossing these breeds as aforesaid, you may bring your kenel to such a composure as you think fit, every man's fancy being to be preferred; and you know the old saying,

'So many men, so many minds,
So many hounds, so many kinds.'

In proof of our assertion, that there is more of true hunting with harriers than with any other description of hounds, we shall point out a few of the difficulties which they have to overcome. In the first place, a hare, when found, generally describes a circle in her course, which is in itself not only more difficult to follow, but it naturally brings her upon her foil, which is the greatest trial for hounds. Secondly, the scent of the hare is weaker than that of any other animal we hunt; and, unlike some, it is always the worse the nearer she is to her end; which accounts for its being better, and lasting longer, when going to her seat, than when running. There is scarcely any scent from a hare until she is in motion; therefore hounds constantly draw over her; and, of course, according to the length of time she has been gone to her seat after feeding, will be the difficulty of hunting her by the trail. In fact, at the most distant part of her previous night or morning's walk, the most tender-nosed hound in a pack will be scarcely able to own the scent at all. But the grand puzzler of all is, when hounds get upon the counter trail, about the middle of a hare's work, and the scent lies so equal that it is most difficult to distinguish heel from chase. No such difficulty as this can occur in any other description of hunting, and can only be obviated by the skill and experience of the huntsman in his notice of the working of his hounds. But although this difficulty is aluded to by almost all writers on the chase, we know not where to look for directions to the huntsman at the critical moment. It is true, Mr Daniel, in his *Rural Sports*, says, "To find out this, see if your hounds challenge counter; if they double, and carry it on counter, they will soon signify their error by opening singly." We conceive there is some reason in this remark, but it will not always avail. Hounds, harriers in particular, are fond of a scent; and if they cannot carry it forward, they will turn and hunt it heel; and here it is that the judgment of a huntsman turns to account. One with a keen eye, and a perfect knowledge of his hounds, may be able to unravel this mystery perhaps six times out of ten; but it is in no man's power to be sure of doing it. His chief guide is in the cry of his pack at this time, which will slacken instead of getting fuller if the scent be heel, as the experience of old hounds adds to their natural instinct the faculty of judging whether it is leading them to their prey or from it.

The great perfection of modern harriers is the head they carry over a country, the result of the pains now taken in breeding them of the same size and character; whereas, upon the old system, which was all for *the pot*, the chief dependence was upon a few couples out of the whole pack, the rest being wheresoever they liked or were able to be in the chase. On the other hand, it may be said modern harriers have not the nose and patience of the old sort, which perhaps they have not; but what they may lose in those respects, they more than gain in another, viz. by being nearer to their game in chase, and,

Hunting. by pressing her, not allowing her to make more than half the work she was able to do when pursued by slow hounds. In fact, the want of speed, and tedious exactness, of the southern hound, rendered the warmest scent, after a short time, cold; which may be proved from the fact of an hour being the average time of killing a hare, in former days, with a good scent, and from three to four with what is called a "fair," a "holding," or a "half scent." For our own part, speaking as fox-hunters, yet abandoning all prejudices against a sport it is too much the fashion to hold cheap, we consider that, to any man who is a real lover of *hunting*, that is, of seeing hounds do their work, and do that work well, a twenty minutes burst over a good country, with a well-bred pack of harriers of the *present* stamp and fashion, affords a high treat. To see them to advantage, however, it should be over a country in which the fields are large, and the fences stone walls, like those of Oxfordshire or Gloucestershire; for harriers, being for the most part obliged to meuse, strong hedges prevent their carrying a head in chase, which is the chief beauty in all hunting.

Somerville has these appropriate lines on the adaptation of hounds to their game:—

"A different hound for every chase
Select with judgment; nor the timorous hare
O'er matched, destroy; but leave that vile offence
To the mean, murderous, coursing crew, intent on blood and spoil."

Harriers should not be too large, certainly not more than eighteen inches high, or, by their speed, and, if good withal, they will much overmatch their game; but in a good and open country there should never be less than from eighteen to twenty couples in the field. A strong pack not only adds to the respectability of the thing (at all events, a small one greatly detracts from it), but, in our opinion, more hounds are wanting to pursue an animal that runs short, than one which, like the fox, generally makes for a distant point. The opinion of Mr Beckford is in opposition to us here. He says, "the fewer hounds you have, the less you foil the ground, which you will find a great hindrance to your hunting;" but it must here be remarked, that in the preceding sentence, this eminent sportsman speaks of the difficulty of getting a strong pack of harriers to run well together; a difficulty which no doubt existed in his day, but is totally overcome in the best hare-hunting establishments of ours. Indeed, we once heard a sportsman declare, and he was a sportsman who had hunted in all the best countries in England, that he had never seen a chase quite complete from end to end, not a single hound being out of place, until he saw it with a pack of harriers over the Cotswold Hills.

The following passage from Beckford is worthy of his pen, and should be strictly observed by all masters of harriers:—"Harriers, to be good, must be kept to their own game. If you run fox with them, you spoil them. Hounds cannot be perfect unless used to one scent and to one style of hunting. Harriers run fox in so different a style from hare, that it is of great disservice to them when they return to hare again. It makes them wild, and teaches them to skirt. The high scent which a fox leaves, the straightness of his running, the eagerness of the pursuit, and the noise that generally accompanies it, all contribute to spoil a harrier." We conclude that the writer here alludes to hunting wild foxes, which is now very rarely done with a pack of harriers, at least in a country near to which fox-hounds are kept. No master of harriers would do it, who wishes his pack to be perfect; and there are other reasons for his not doing it, which it is unnecessary to mention. But the very best understanding now generally exists between masters of fox-hounds and masters of harriers; and it is a common practice of such of the latter as reside in a

Hunting. fox-hunting district, to await the publishing of the fox-hunting fixtures before they make their own.

The following hints may be useful in hunting the hare. First, respecting the hare herself; hares breed from February to the end of harvest, and are said to live seven years. The buck affords the best sport, particularly in the *spring*, when, after one or two rings, he often goes straight on end for several miles. Hence the proverb, "as wild as a March hare." Some persons pretend to distinguish the sex upon the seat; at all events, the head of the buck is shorter, the shoulders redder, and the ears redder, than those of a doe; he is also larger, and his hind parts are of a lighter colour. If the claws are smooth and sharp, and the ears tear easily, the hare is young.

The difficulty of finding a hare by the eye is well known. It is an art greatly facilitated by experience, although not one person in ten who attempts it succeeds in it. But here we recognize the Hand that furnished her with such means for her security; as, from the delicacy of her flesh, she is the prey of every carnivorous animal, and her means of defence are confined only to her flight. In going to her form, she consults the weather, especially the wind, lying always, when she can, with her head to face it. After harvest, hares are found in all situations; in stubble fields, hedgerows, woods, and brakes; but when the leaves fall, they prefer lying upon open ground, and particularly on a stale fallow, that is, one which has been some time ploughed; as likewise after frost, and towards the spring of the year. In furze, or gorse, they lie so close as to allow themselves nearly to be trodden upon, rather than quit their form. The down or upland-bred hare shows best sport; that bred in a wet, marshy district, the worst, although the scent from the latter may be the stronger. If a hare, when not viewed away, runs slowly at first, it is generally a sign that she is an old one, and likely to afford sport; but hares never run so well as when they do not know where they are. Thus, trapped hares, turned out before hounds, almost invariably run straight on end, and generally till they can run no longer; and they generally go straight in a fog.

The chase of the hare has been altered, and rendered less difficult in some degree, by the improvement of the hound used in it. In the first place, she is now so pressed by the pace at which she is hunted, that she has not time, when first started, to visit the works of the preceding night; nor is she, from the same cause, so likely to run her foil. But when making out her foil, hounds are now not let to puzzle over it as formerly, but, if it be not quickly done, are rated forward by a whipper-in, to make good the head; and if that do not succeed, to make it good round the fences. Formerly, when hounds were at fault, the cast was made in a small circle to begin with, and then their huntsman tried wide; whereas they now generally, and especially if the game is supposed to be not far before them, make a wide cast at first, and then contract the circle if the wide cast fails. There is reason in this; for if the hare is on, the wide cast will cross her; and if she is not, she has most likely squatted. The old system was, "avoid a view, if possible." The modern one rather encourages a view, but no holloaing; for as hares regulate their speed in great measure by the cry of hounds, they are less apt to have recourse to shifts when the cry bursts upon them at once. In fact, to suit the taste of the day, which is to have every thing that moves, fast, it was necessary that the greater part of the system of hunting the hare should be changed. It used to be insisted upon, that harriers should never be lifted as long as they can possibly carry a scent; and Beckford says, "a hare is not fairly hunted unless the pack be left almost entirely to themselves; that they should follow her every step she takes, as well over greasy fallows as through large flocks of sheep; nor should they be cast, but when nothing can

Hunting. be done without it." This may have been all very well when gentlemen followed hounds on foot, or were content to be some hours killing one hare; or for Mr Beckford himself, who (although he admits having bred an infinity of harriers before he could get a pack to please him) thought hare-hunting should be taken as a ride after breakfast, to get an appetite to dinner.

But we have reason to believe, if a master of harriers of the present day wished to show his pack to advantage, and could have a choice of a run to display them, he would say, "Give me twenty-five minutes *in all*; the first fifteen a severe burst; then a fault, well hit off; and the remaining ten without a turn." But, it may be asked, wherefore the fault? We reply, because, although the speed of well-bred harriers, for a certain time, if not quite equal to that of fox-hounds, is too much for most hares, as well as for most horses that follow them, yet, after that certain time, say fifteen minutes, wind and power begin to fail, and a short check is useful. Besides, the ability of a pack, in quickly recovering a fault, is more than a counterbalance to their coming to a fault at all, which, with a short-running animal, as the hare is, it is often difficult to avoid, nay, rather to be looked for indeed in every field.

The difference in the terms used in hare-hunting and fox-hunting is comprised in a few words:—Harriers are cast off, in the morning; fox-hounds throw off. The hare is found by the quest or trail; the fox by the drag. The hare is on her form or seat; the fox in his kennel. The young hare is a leveret; a fox a year old is a cub. The view holloa of the hare is, "Gone away;" of a fox, "Tallyho." The hare doubles in chase; the fox heads back, or is headed. The harrier is at fault; the fox-hound at check. The hare is pricked by the foot; the fox is ball-ed or padded. The hare squats; the fox lies down, stops, or hangs in cover; the "who-whoop" signifies the death of each.

Our ideas of a complete pack of fox-hounds are very soon expressed. For four days' hunting in the week there should be not much less than sixty couples of working hounds; nor do we think more are necessary, as hounds, like horses, are always better and sounder when in regular work. For three days in the week, forty couples are enough. They should have at their head not only a huntsman, but also a master, each of whom knows his business, and one *clever* whipper-in, and another as clever as you can get him. It is not necessary, because it is not feasible, that they should all be good drawers of covers; but it is absolutely necessary to perfection that they should all get to work as soon as a fox is found, and prove themselves true on the line their game has gone. As to their being quite free from riot on all days, and on all occasions, the man is not yet born *who can say with truth*, "my hounds *never* run riot." Nature is seldom extinguished; and as *Æsop's* damsel, turned to a woman from a cat, behaved herself very well till the mouse appeared, so will hounds occasionally break away upon riot, particularly when out of sight of the servants, in large covers, or when disappointed by a long blank draw. We conceive a pack of fox-hounds entitled to be called "steady from riot," if they will bear being put to the following test:—If, when at fault for their fox, in the middle of a large field, a hare gets up in view, and not a hound stirs, nor attempts to break away after her; and this without a word being said to caution them. But it is in chase, with only a holding scent, that a pack of fox-hounds display their excellence. In such a case as this there must be checks; and it being ten to one against their fox running straight, because they cannot press him, now is the time to see them work. Do they carry a good head when the scent is a-head and serves them well? Are they cautious when it does not? And do they turn short when the game has turned right or left,

or is gone back? Are they careful not to overrun the scent, and will they stand pressing to a certain degree by the horsemen? But having overrun it, do they stop directly, and make their own cast? Should that fail, do they come quickly to horn or holloa—to their huntsman's cast? Do they fling for a scent when their huntsman lifts them to points, and not attempt to *flash*, or break away, without a scent? When the scent serves well, do they not only carry a good head over a country, but, as their game is sinking, does the head become better? If they do all this, and have speed and stoutness withal, they are equal to any fox in any country, and are worth a thousand sovereigns to a sportsman.

The number of fox-hounds taken into the field depends chiefly upon country; more being required in that which is woodland, than for an open champaign, or for our enclosed grass districts, such as Leicestershire. Eighteen couples are generally considered as sufficient for the latter; and the strongest woodlands do not require more than from twenty-two to twenty-five couples; and we consider the latter the more common number, in the field, of any pack in any country.

The average speed of fox-hounds is estimated at ten miles, point blank, over a country, with a good scent, in one hour; that is to say, making allowance for deviations from the straight line, hounds seldom go more than ten miles, from point to point, in that space of time. Mr Beckford has a very judicious remark on this part of his subject. "That pack," he writes, "may be said to go the fastest that can run ten miles the soonest, notwithstanding the hounds separately may not run so fast as many others. A pack of hounds, considered in a collective body, go fast in proportion to the excellence of their noses and the head they carry; as that traveller gets soonest to his journey's end who stops least upon the road. Some hounds that I have hunted with would creep all through the same hole, though they might have leaped the hedge; and would follow one another in a string, as true as a team of cart-horses. I had rather see them, like the horses of the sun, *all abreast*."

There is nothing in the history of our domestic sports and pastimes to inform us correctly as to the date of the first regularly-established pack of fox-hounds kept in England. Neither the holy prioress of St Alban's, Dame Juliana Bannes, Markham, nor any of the very old writers on such subjects, are able to satisfy us on this point; but, on the authority of the Rev. William Chafin, in his *Anecdotes respecting Cranbourn Chase*, the first real steady pack of fox-hounds established in the western part of England was by Thomas Fownes, Esq. of Stepleton, in Dorsetshire, about the year 1730. "They were," says the author, who wrote in 1818, "as handsome, and fully as complete in every respect, as the most celebrated packs of the present day. The owner, meeting with some worldly disappointments, was obliged to dispose of them; and they were sold to Mr Bowes, in Yorkshire, the father of the late Lady Strathmore, at an immense price for those days. They were taken into Yorkshire by their own attendants, and, after having been viewed and much admired in their kennel, a day was fixed for making trial of them in the field, to meet at a famous hare-cover near. When the huntsman came with his hounds in the morning, he discovered a great number of sportsmen, who were riding in the cover, and whipping the furzes as for a hare; he therefore halted, and informed Mr Bowes that he was unwilling to throw off his hounds until the gentlemen had retired, and ceased the slapping of whips, to which his hounds were not accustomed, and he would engage to find a fox in a few minutes, if there was one there. The gentlemen sportsmen having obeyed the orders given by Mr Bowes, the huntsman, taking the wind of the cover, threw off his hounds, which immediately began to feather, and soon got upon a

Hunting. drag into the cover, and up to the fox's kennel, which went off close before them, and, after a severe burst over a fine country, was killed, to the great satisfaction of the whole party. They then returned to the same cover, not one half of it having been drawn, and very soon found a second fox, exactly in the same manner as before, which broke cover immediately over the same fine country; but the chase was much longer; and, in course of it, the fox made its way into a nobleman's park, I believe Lord Darlington's, which was full of all sorts of riot, and it had been customary to stop the hounds before they could enter it, which the best-mounted sportsmen attempted to do, but in vain; the hounds topped the highest fences, ran through herds of deer and a number of hares, without taking the least notice of them; ran in to their fox, and killed him some miles beyond the park; and it was the unanimous opinion of the whole hunt that it was the finest run ever known in that country. An ample collection of field-money was made for the huntsman, much beyond his expectation; and he returned to Stepleton in better spirits than he left it, and told his story as above related, in which we must allow for some little exaggeration, very natural on such an occasion. This pack was probably the progenitors of the very fine ones now in the north. Before this pack was raised in Dorsetshire, the hounds which hunted in the chase hunted all the animals promiscuously, except the deer, from which they were necessarily made steady, otherwise they would not have been suffered to hunt at all in it." We have good reason to believe Lord Yarborough's fox-hounds, at Brocklesby Hall, Lincolnshire, were established as far back as the year 1700. The present huntsman and his late father hunted them more than fifty years.

The Fox.

The fox makes a conspicuous figure in the natural history of animals; still, in some respects, his character has been over-rated and exaggerated. He is a native of all temperate regions; and although we read of the cur, the greyhound, and the mastiff fox, we consider a fox as a fox, the difference in size, colour, &c. being dependent on either climate or food. It is true, they are larger in some particular parts of England than in others; and it is generally believed, that such as are what sportsmen call "stub-bred foxes," that is, bred above, and not below ground, are the largest. It is in this sole instance that the habits of the fox differ from those of the wolf, to whose genus he belongs; the she wolf never bringing forth her young, as the fox does, under ground. But although the general conformation of the fox is the same as that of the wolf, his external form has a greater resemblance to the dog, with whose character also he closely assimilates, when domesticated, in expressions of affection, of anger, or of fear. When minutely examined, and particularly in relation to his predatory life, and, consequently, the dangers to which he is exposed, he will be found to be abundantly endowed by nature with the instinctive faculties requisite for such a life, in addition to the most elegant form an animal of his size is capable of. Foxes copulate in the winter months, and of course bring forth in the spring, on an average perhaps half a dozen cubs at a litter, born blind like the dog; but the period of each depends on the mildness or severity of the winter. Excepting during the season of sexual desire, the fox is a solitary, not a gregarious animal, for the most part passing the day in sleep, and the night in prowling after food.

The food of the fox is extremely variable; indeed, very few things that have or have had life come amiss to him: but we have reason to believe that rabbits, hares, poultry, partridges, and pheasants, with their eggs, are his favourite repasts; and when these are not to be had, he contents

himself with field-mice, black-beetles, snails, and frogs. **Hunting.** That he can even exist solely on the latter, was proved a few years ago, by the circumstance of a fox-hound and a fox having been found at the bottom of a dry well, into which they had fallen; the hound had perished from hunger, but the fox had supported his life on frogs. Of those animals and birds which we call game they are without doubt destroyers—of pheasants, it is asserted, twenty-five per cent.; but how it happens that they have been charged with feeding on grapes, we are, as far as our own experience directs us, quite at a loss to determine. The fact, however, is stated by several accredited writers, and has given birth to the fable of the fox and the grapes, the moral of which is a severe rebuke to an envious person who "hates the excellence he cannot reach." Aristophanes, in his *Equites*, compares soldiers devastating a country to foxes destroying a vineyard; and Galen (*De Aliment.* lib. iii. c. 2) tells us, that hunters ate the flesh of foxes in autumn, because they were grown fat with feeding on grapes. There are also two lines in Theocritus (*Idyl.* E. v. 112) which admit of the following version:—

I hate those brush-tailed foxes, that each night
Spoil Micon's vineyards with their deadly bite.

He is likewise accused of eating human flesh, and, we have reason to believe, accused justly. In addition to the sentence pronounced by David, in the sixty-third psalm, that the enemies of God and himself should be "a portion for foxes," we have the following interesting historical anecdote. When the famous Messenian general Aristomenes was thrown into the Ceadas (a deep chasm into which criminals were hurled) by the Lacedæmonians, his life is said to have been preserved by following a fox that was feeding on a dead body, to the aperture at which he had entered, and through which, after enlarging it with his hands, he himself escaped.

But although the subtilty of the fox has been proverbial from the earliest times; so much so, that our Saviour himself called the tetrarch Herod "a fox," by way of signifying the refinement of his policy; we do not perceive that, with the exception of a timid prudence on breaking cover, he shows more sagacity in his endeavours to baffle his pursuers than the hare is known to do, if indeed so much. To "catch a weasel asleep," is a typical designation of an impossibility; but foxes are frequently surprised in their naps by hounds drawing upon them, up wind, particularly when gorged with food. In the faculty of natural instinct, however, they are vastly superior to hares, and equal in this respect to the dog; there being well-attested instances of their being sent, *marked*, upwards of fifty miles in a bag, and, having escaped being killed by hounds before which they were turned out, being retaken in their native woods. But it is in his last moments, when seized by hounds, that the superiority of character in the fox over the hare exhibits itself. He dies in silence; but he sells his life dearly; for, revengefully seizing upon the first hound that approaches him, he only relinquishes his hold with the last gasp.

When first the fox was hunted in Great Britain, he was considered merely as a beast of prey, and killed in any way in which he could be got at, generally by being caught in nets and pitfalls, or killed at earth by terriers; his scent not being considered favourable to hounds by our forefathers. Although they admitted it to be hotter at hand than that of the hare, their favourite object of pursuit, they believed it to be sooner dissipated; but perhaps the real cause of their objection was, in the general inequality of speed and endurance in the hounds of their days and a really wild fox; and foxes then were undoubtedly stouter, and able to run much greater distances from point to point, than they now do, when they have comparatively so short

Hunting. a distance to travel for their food, as well as being often over-fed. These animals, then, being always destroyed when an opportunity offered, were of course generally scarce; which, added to the great extent of woods and other fastnesses with which England then abounded, accounts for the fact of hunting the fox, unless as a beast of prey, not being in vogue until these objections were removed. But the fox was ever considered as a mischievous animal, and, in one signal instance, is said to have been made an engine of mischief to a vast extent, in carrying fire and flame into the standing corn of the rebellious Philistines. A solution of this account, however, on natural principles, being difficult, it is pretty generally admitted that a mistake in the translation has given rise to it.

As the preservation of the fox is now more an object in Great Britain than his destruction, it may not be amiss to observe, that a few links of an iron chain, such as an old plough-trace, or a small piece of red cloth, suspended near to the spot on which a hen-pheasant sits, is a certain protection from foxes, of herself, her eggs, or her brood.

It is asserted by sportsmen of experience, that the scent of foxes varies with the animal; and that a vixen fox which has laid up (brought forth) her cubs is nearly devoid of scent.

Huntsman.

In the lower ranks of life there are callings which require the exercise of skill and judgment to the very utmost of their extent; and we know of none that comes more directly within this class than that of a huntsman does, of whom it may be said, that in all his operations he has not only to exercise his mental faculties at every step he goes, when unravelling the intricacies of the chase, but actually to tread a path nearly unknown to human reason. *Fimus oratores, nascimur poete*, is a good definition of the constitutional qualifications of a first-rate poet, at all events of the difficulty of becoming one; and really when those of a huntsman are all summed up, if the life of man be not too short, years of toilsome labour appear to be scarcely sufficient to evince, even to a man of talent, a perfect knowledge of his art. Let us first hear what Beckford says of him, and then we will offer our own sentiments on the subject, which vary little from those entertained by this great authority on all matters of the chase. "A good huntsman," says he, "should be young, strong, and active, bold and enterprising; fond of the diversion, and indefatigable in the pursuit of it; he should be sensible and good tempered; he ought also to be sober; he should be exact, civil, and cleanly; he should be a good horseman, and a good groom; his voice should be strong and clear; and he should have an eye so quick as to perceive which of his hounds carries the scent, when all are running; and should have so excellent an ear, as always to distinguish the foremost hounds when he does not see them. He should be quiet, patient, and without conceit. He should let his hounds alone *when they can hunt*, and he should have genius to assist them *when they cannot*." It is scarcely necessary to observe, that Mr Beckford is here speaking of a huntsman to fox-hounds, his demands on the hare-hunter being somewhat more moderate; and yet the difficulties he has to combat with are more than obscurely acknowledged. Aware that practice is the key to excellence in every art, and that experience is the great mistress of all human knowledge, he requires age, with its experience, to fit the hare-huntsman for his office, and to be a match for the wiles of the hare; very ludicrously adding, that, "for patience, he should be a very Grizzle."

We do not think we exaggerate when we say, that the picture here drawn of a clever huntsman may, in one degree (of bodily endowments at least), be termed a near approach to human perfection; nor do we hesitate in add-

Hunting. ing our conviction, that if to the attributes here given him are joined a comprehensive mind and a humane heart, nothing is wanting to make it complete. As the chase is said to be the image of war, "but without its guilt," let us suppose Mr Beckford had been drawing the character of a soldier, and not a huntsman. Could he have given him higher qualifications than a clear head, nice observation, a good constitution, undaunted courage, a powerful voice, an accurate ear, and a lynx's eye, together with a quick perception, endowed with quick impulses for acting, so necessary to each? That he should be "fond of his profession," and "indefatigable in the pursuit of it;" "sober and exact," "sensible," and "good tempered?" It is not necessary that either a huntsman or a soldier should be a man of letters; some of the best among the former have been scarcely able to read; and there have been but few Cæsars who could fight and write; but a good understanding is put to the test by both the one and the other; and although we do not mean to place the servile situation of a huntsman on a level with the honourable profession of the soldier, each requires, in a high degree, a good, sound understanding, and a manly exertion of talent.

But the office of huntsman to fox-hounds is not always intrusted to servile hands. It has long been the ambition of masters of packs to hunt their own hounds; and although the fashion has become more prevalent within the last thirty years than it was in the earlier days of fox-hunting, yet we could bring forward some instances of what are called gentlemen-huntsmen of pretty long standing. His Grace the Duke of Cleveland, and Sir Richard Puleston, Bart. each hunted his own hounds for nearly forty years; and the late William Leche, Esq. of Carden-Hall, Cheshire, was his own huntsman for an equally long period. Coming next to them in chronological order, stand Messrs Ralf Lambton, Musters, Thomas Assheton Smith, Lord Segrave, Sir Bellingham Graham, Bart., Mr Osbaldeston, Mr Nicoll, the Earl of Kintore, Mr Smith, late of the Craven, the Honourable Grantley Berkeley, and several more of a more recent date. There can be no doubt that no man enjoys hunting to perfection equally with him who hunts his own hounds; nor can there be any reason assigned why an educated gentleman should not excel, in any ardent and highly scientific pursuit, an uneducated servant; nevertheless, we do not think that, throughout the fox-hunting world in general, gentlemen-huntsmen have been so popular as might have been expected; and in some countries that are hunted by subscription, an exception is taken against the master of the pack being the huntsman. That it is a very laborious office when efficiently executed, both in the kennel and the field, is well known to those who have filled it; but, *labor ipse voluptas*, we have seen a pains-taking zeal displayed in the master which we have too often seen wanting in the servant; and we could name a nobleman who used frequently to tell his huntsman, when drawing for his second fox, that he was "thinking more of his dinner than of hunting."

In the earliest days of English hunting, gentlemen huntsmen were in high estimation; and a reference to *Domesday-book* will show that Waleran, huntsman to William the Conqueror, possessed no less than fifteen manors in Wiltshire, eight in Dorsetshire, together with several in Hampshire; and his name occurs on the list of tenants *in capite* in other counties. The same venerable record of antiquity describes the extensive possessions of other huntsmen, bearing the names of Croc, Godwin, Willielmus, gentlemen of consideration in those times, in which, according to Froissart, the ardour of the chase was carried to a pitch since unequalled by the Norman lords, some of them having kept sixteen hundred dogs, and a proportion-

Hunting. able number of horses, for the chase.¹ But we may go still farther back, to a very barbarous age, for the respect in which huntsmen have been held by kings and legislators. The temperate but brave Agesi-laus, and even the luxury-destroying Lycurgus, provided for the bountiful entertainment of their huntsmen on their return from the chase; a pursuit which they believed to be so agreeable to the gods, that they offered the first fruits of their sports to Diana.

The Duties of a Huntsman.

The situation of huntsman to a pack of fox-hounds is one of great responsibility, and, if the breeding as well as hunting of them be left to him, a very arduous undertaking. Nor does it end here. There is great call for judgment in feeding hounds to answer every purpose, such as long draws, severe days, and at the same time to go the pace without showing distress, and to come home at night with their sterns up, and looking fresh. Here variety of constitution increases the difficulty; for, to please the eye, hounds should look level in their condition, as well as even in point of size. One hound will not bear to have his belly more than half filled; another will not fill his when he may; and still each must be made equal in strength and wind to the other, to stand hard work and go the pace without distress. A huntsman must have a very watchful eye over their condition, which will be effected by work and weather; and he must be pathologist enough to foresee and provide against the alterations which such circumstances produce. He has need also to be a physiologist, to enable him to exercise a sound judgment in breeding his hounds after a certain form and fashion, which are absolutely essential to their doing well, and at the same time pleasing the eye. Then look at him in the field, with a hundred eyes upon him, and a hundred tongues to canvass all his acts. Here he should be a philosopher.

In the Field.

A huntsman is expected to bring his hounds to the cover side in a high state of condition, at all seasons of the year. They should be seen quietly grouped about his horse's heels, when he is waiting for the hour of throwing off, without a whip stirring, or even an angry word said to them. This is a time when they are often subject to the inspection of strangers, and a first impression goes a great way. When the master gives the word to draw, they should approach the cover at a gentle trot, one whipper-in riding in their front; and when within about a stone's throw, they may dash into it with as much spirit as they like. Not a word need be said by way of caution, unless it appears to be especially called for, when "gently, there," by the first whipper-in, and one smack of his whip, will generally have the desired effect. But we like to see the huntsman alive at this moment, as well as his hounds. Homer compares hounds cheered by their huntsman, to troops encouraged by a skilful general; and doubtless there is a similarity in the effect. Putting hounds out of the question, there is something very cheering to the field in the "cheering holloa" of a huntsman, when encouraging his hounds to draw; and it also answers two good purposes. Should a hound get wide of the pack, or hang behind in the cover, or should any of the field be at a loss, which often happens in woodlands, the "pipe" of the huntsman is an unerring guide to all. How necessary is it, then, at all events how desirable, that, like Ajax, he should be *Βοήν ἀγαθόν*, "renowned for the strength of his voice," and, we may add, for the melodiousness of it. He should likewise blow a horn well; and if he varies the blast, to make himself more intelligible to his hounds, he will find his ad-

Hunting. vantage in it. We wonder this is not more practised than it is. Independently of the common *recheat*, why not have the "view horn" as well as the "view holloa?" But too much horn, like *vox et præterea nihil*, is bad, making hounds apt to disregard it; yet a huntsman would be sadly at a loss without it, not only in getting hounds away from cover and in chase, but in drawing large covers, in which they will occasionally get wide. Here a twang of the horn saves a huntsman's voice in bringing them over to him. One short blast is sufficient.

..... "He gave his bugle-horn a blast,
That through the woodlands echoed far and wide."

The following observations on halloaing are from the pen of an old sportsman. They contain hints that it would often be advisable to profit by; and they apply not only to huntsmen, but to the field. "A general rule as to *halloaing* is, never to halloo unless you can give a good reason for so doing. A constant and indiscriminate use of the voice is blameable in a huntsman; his hounds, by constantly hearing his voice, will soon learn to pay no more attention to it than they do to the singing of the lark, and they will not come to him when they are called. Some huntsmen, in making a cast, try that part of the ground where they can most conveniently ride, instead of that where it is most likely the fox is gone. Others ride on halloaing, without regarding their hounds, while making their cast; their own noise then prevents them from hearing their hounds, who often take the scent without their being aware of it."

"No person should halloo that is not well forward. It signifies little what words you use, as a hound's knowledge of language is confined to a view halloo, a call, and a rate: it is the tone of the voice, and not the words, that they understand; and hounds will always draw to the voice, if it be not a rate. This shows the impropriety of halloaing behind hounds. In running with good scent, if you are up with the pack, a cheering halloo does no harm; the hounds will not attend to it, and it is expressive of the pleasure of the hallooeer. Never cap hounds with loud halloos to a bad scent; capping makes them wild and eager, and should never be done but when the scent is high. Hounds should be brought up gently to a cold scent." Halloaing to hounds is often necessary, and highly useful when done with judgment; but the word "tallyho" loses many a good run; as, unless a fox is gone clear away from his cover, it occasions him to turn back often into the mouth of the hounds.

Dog Language.

It is true, no correspondence can subsist between beings whose natures are separated by a chasm so wide as that between rational and irrational animals; and it is with a view of adapting our meaning to the level of their understandings, that we generally address or converse with brutes in a silly unmeaning manner; which gave rise to the remark, that children, or men who act like children, have animals more immediately under their control than the philosopher who is replete with wisdom. But we may look farther into the subject than this. If the Almighty had not manifested some portion of his attributes by means which are on a level with the capacity of the human race, man must have remained for ever ignorant of his Maker. The power of language, however, between man and man, is prodigiously increased by the tone in which it is conveyed. The vagrant when he begs, the soldier when he gives the word of command, the senator when he delivers an oration, and the lover when he whispers a gentle tale to his mistress, all differ in the key in which they speak; and it is thus that huntsmen and whippers-in make themselves

¹ See Froissart, tom. iv. c. 27.

Hunting. intelligible to hounds. They do not speak to them in an unmeaning manner, or after the manner of children; but in short and pithy sentences, every word of which is law. The method of doing this, however, admits of several degrees of excellence; but the huntsman who is endowed by nature with a clear, sonorous voice, in a well-pitched key, and knows when to use it with effect, contributes greatly to the enthusiasm of fox-hunting, and no doubt to the success of it.

Without entering again into the wide range of hunting, we cannot do more than add a few maxims which may be observed by a huntsman in the field. In drawing for your fox, don't be persuaded always to draw up wind. In the first place, you are in danger of chopping him; secondly, he is sure then to go down wind at starting; and, thirdly, you may drive him into a worse country, or from his point. When found, get after him as quickly as possible if you have a body of hounds with you; if not, you will have a better chance of sport if you can wait till the body come up. This is easily done by a twang of the horn, or a false holloa, if hounds are under good command, and the convenient opportunity be seized upon. Keep near to them in chase, with your eye on *the body* of the pack, as well as on such hounds as may be leading; the body are more certain to be right. Next to knowing where a fox is gone, is knowing where he is not gone; therefore, in your cast, always make good the head. This you will do for your satisfaction; but hounds are seldom at fault for the scent a-head, when the chase has been at all warm, that is, on a fair scenting day; for if the fox be gone forward, wherefore the fault? Good hounds will seldom or never leave a scent a-head, unless the ground be stained by sheep or cattle, or when the chase leads over dry ploughed land, hard and dry roads, &c. It is high odds that your fox has turned to the right or to the left; but although his point may be back, he cannot well run his foil, from the number of horsemen that are generally in the rear of fox-hounds. Recollect your first check is generally the most fatal to sport, and for these reasons: Your hounds are fresh, and perchance a little eager; they may have overrun the scent for some distance, owing to their being pressed by the horses, which are also at this time fresh; nor will they always get their heads down as soon as they should do, from the same exciting causes. Again, your check now generally arises from a short turn, the fox having been previously driven from his point, which he now resolves to make; and he will make it at all hazard at certain times. When your hounds first "throw up" (*i. e.* check), leave them alone if they can hunt; but, disregarding what the "old ones" say on this subject, as inapplicable to these fast times, don't be long before you take hold of them, and assist them, if they cannot. We would not go from scent to view; yet hounds in these days that will not bear lifting are not worth having. But do all this quietly as well as quickly. Turn your horse's head towards the line you think your fox is gone; and the first moment you see all their heads up, that is, if they do not hit him off, put your horn to your mouth for one blast or two, and trot away to still more likely points. If your pack will divide when casting, so much the better; but if they are good for any thing, they will be making their own cast whilst you are making yours, by not keeping at your horse's heels, but spreading as they go.

When you have hit upon his point, if a single hound goes off with a good scent, get the body to him as quickly as you can; but not so if the scent be not warm. In the latter case, your hounds will be in expectation of a fresh fox, and will be in a hurry; the hound that is forward will be lifted, and in all probability you will have to seek for the scent again. Go gently, and your hounds, if steady, will settle to it. Likewise, if, when at check, you are holloaed to a

spot where a fox has been viewed, *stand still*, and say no-thing at the moment the first two or three hounds throw their tongues. If you hurry the body on immediately, the scent will often be lost if the fox has been a few minutes gone. If it can be done, give your hounds the wind at a crisis like this. Again, when a fox has been viewed, and you go directly to holloa, do not take your hounds to the extreme distant point at which he was viewed, but a hundred yards behind it; and for this reason. If you take them to the extreme point, and they do not take up the scent at once, you have then to make your cast at a venture; whereas, if you lay them on at that distance behind it, you have somewhat of a guide to that extent, as to the line towards which you should draw them.

The following further hints may be serviceable, or at all events they relate to hounds at check. In trying back, hounds have this advantage. It is evident the fox has come the line, up to the point where the check occurred; and he must be gone either to the right or the left of it, or back. We make this observation, because so much has been said about the straight running of foxes, which is far from true; and the necessity of persevering in the cast a-head with the fox, and back, on the foil, with the hare. The more hounds spread, within reason, in this backward cast, the better will be the chance of making the check a short one. Again, if at check on a road, or foot-path (the latter not often run over by foxes), when you observe some of your best hounds failing to make it good, on one side of either, it is reasonable to suppose the fox is gone on the other. If your hounds check in a cover in the middle of a run, and the fox is viewed away from it, try and get your hounds together as much as you can in the short time that can be allowed for it, *before you cap them to the scent*. It generally ensures a good finish, from two obvious causes. First, hounds get fresh wind; and, secondly, they will have a better chance to carry a good head, which generally ends in blood, and in blood well earned; for the fox is more likely to stand longer, and go straighter, for not having been viewed by hounds when he broke. But the most difficult point for a huntsman to decide upon promptly is, when his pack divides, which division is on the hunted fox. If it happen in cover, his ear is his surest guide, as the cry is louder and stronger on a fresh-found fox, than on one which has been for some time on foot. If when out of cover your pack should split on two separate scents, you should get as near as you can to what you imagine to be the chase, giving view holloas every yard you go; also sending one of your whippers-in to stop the other hounds. Your choice will doubtless be directed by several circumstances. You will first look for your truest and best line-hunting hounds, and next, to the points your first fox would be likely to make for; and if your choice fall upon the lot that are going farthest up the wind, the other will be more likely to hear them running; and, should they come to a check, to join cry again perhaps before a whipper-in can get to stop them.

To the above we add a few general rules. Don't be dispirited at a succession of bad sport, for it is not within your control, good hounds and sport not being naturally co-existing circumstances. Be as zealous as you please in the field, but temper your zeal with judgment, and don't weary your hounds by long draws, on days which bid defiance to sport. It was once justly observed, that those who seek pleasure from the chase must ask permission of heaven; and the case still remains the same. Hounds without a scent resemble a man running in the dark; neither can make head against such fearful obstructions; and on stormy days, with a very high wind, if you have influence with your master, persuade him to let you go home after the first failure. It is not generally known what mischief even one such day does to some hounds. Don't set too high a value on blood,

Huntingdon
Huntingdonshire.

unless well earned; it is the result of want of reflection alone that has set any value whatever upon it, when otherwise obtained. Mob a bad fox in a cover if you like; but never dig out a good one, unless your hounds have almost viewed him into a spout, and you can bolt him before the excitement subsides. Never break ground in a country belonging to another pack of hounds, nor dig for a fox in a moor earth in your own. Many a bitch fox, heavy with young, has been killed by this means in the spring, instead of the one that was hunted and marked to ground; and be assured that sportsmen in general do not estimate the goodness of a pack of hounds by the noses nailed against the kennel door. Lastly, keep your field back from pressing on your hounds in chase, and still more so when in difficulties, as well as you can; but don't suffer your zeal to carry you too far on this point. Remember the apostolic precept, "BE COURTEOUS."

The modern annals of sporting contain the names and characters of several very eminent huntsmen, whose conduct and abilities would have done credit to any other situation of life to which it might have been their lot to have been called. Considering the responsibility of their office, the severity of their work, and the risks they run, they are not supposed to be too highly paid in wages, say on the average L.100 per annum, besides their board; but, from perquisites, such as annual presents from gentlemen who attend the hounds which they hunt, and drafted hounds sold to other packs, they may realize the like sum in addition.

The office of whipper-in is, in our opinion, thought more lightly of by the sporting world in general than it deserves to be; and, as we shall show, we have the great Beckford on our side. We never saw a steady pack of hounds without at least one good whipper-in, and we are quite sure we never shall; but we have seen many of these red-coated youths who might have been better employed at the plough-tail—who, like Cicero's lawyer, belonged rather to the profession than the science. "If he has genius," says Beckford, "he may show it in various ways; he may clap forward

Huntingdonshire.

to any great earth that may by chance be open; he may sink the wind to holloo, or mob a fox when the scent falls; he may keep him off his foil; he may stop the tail hounds, and get them forward; and has it frequently in his power to assist the hounds without doing them any hurt, provided he has sense to distinguish where he is wanted most. Besides, the most essential part of fox-hunting, *the making and keeping the pack steady*, depends entirely upon him, as a huntsman should seldom rate, and never flog a hound. In short, I consider the first whipper-in as a second huntsman; and, to be perfect, he should be as capable of hunting the hounds as the huntsman himself. He should not be conceited, but contented to act an under part, except when circumstances may require that he should act otherwise; and the moment they cease, he must not fail to resume his former station."

To the above excellent remarks we have very little to add. We only recommend, when a huntsman is casting his hounds, that a whipper-in should turn them to him always as gently as he can, and with little noise; by which means they will *draw* towards him, trying for the scent as they go; whereas loud and repeated rates and cracks of the whip make hounds fly to their huntsman at this time with their heads up. When they are drawing properly towards him, not a word should be said; a whipper-in riding outside of them will be sufficient.

It is scarcely necessary to say, a whipper-in, to be perfect, should be an accomplished horseman, as nothing requires a much firmer and nicer hand than the act of following a hound over open ground to flog him. A whipper-in, however, should always hit a hound first, and rate him afterwards, and be able to hit hard when occasion requires it. A riotous fox-hound cannot be trifled with, if he is to be cured of his evil ways; and let the lash fall heavily when necessary, but at no other time. Above all, let the whipper-in have an eye to a skirter: skirting is the least pardonable fault a hound can possess, because he is then deviating from his nature, and has not the force of impulse to plead, which the hound that runs riot has. (B. B. B. B.)

HUNTINGDON, a market-town, the capital of the county of that name, sixty-four miles from London by Buckden, and fifty-nine by Royston. It stands on a level plain on the river Ouse, which is navigable for barges to Bedford, and by which a supply of coals and other heavy articles is conveyed. It contains two parish churches, and a good county-hall, where the assizes are held; and it has a good market, especially for corn, on Saturday. It is governed by a mayor, twelve aldermen, and a common council, and returns two members to parliament by about 380 voters. The inhabitants amounted in 1801 to 2035, in 1811 to 2397, in 1821 to 2806, and in 1831 to 3267.

HUNTINGDONSHIRE, an inland county of England, and, except Rutlandshire, the smallest of the whole. It is bounded on the north-east and east by Cambridgeshire, on the north-west and west by Northamptonshire, and on the south by Bedfordshire. Its greatest breadth is twenty-three miles, and its greatest length thirty miles, and its square contents are 350 miles.

The county has four hundreds, with six market-towns, and 104 parishes, the total population of which amounted in 1801 to 37,568, in 1811 to 42,208, in 1821 to 48,771, and in 1831 to 53,100. The occupiers of land employing labourers were 857, of land employing no labourers 397, of labourers employed in agriculture 5967, of persons employed in manufactures 290, of those employed in retail trade and handicraft 3488, of capitalists, bankers, &c. 401, of labourers not agricultural 971, of male servants 454,

other males twenty years of age 649, and female servants 1941.

The principal towns, and their population, are,—

Huntingdon.....	3267
St Ives.....	3314
Ramsey.....	3006
St Neots.....	2617
Godmanchester.....	2146
Kimbolton.....	1584

The county returns two members to the House of Commons, the voters are about 3200, and the places for polling are Huntingdon and Stilton. The borough of Huntingdon also returns two members.

The appearance of the county is of three descriptions. In the south-east it is an extensive plain of rich meadow land, the middle varying in its surface with gentle undulations, and without many enclosures or many woods; the higher part was anciently a forest, and still contains a great extent of woodland, the foliage of which gives beauty to the scenery. On the north-eastern side a portion of the county is fine land, comprising a part of what is commonly called Bedford level, comprehending nearly one fifth of the whole county.

The two most considerable rivers are the Ouse and the Nen. The Ouse enters from Bedfordshire, and crossing the whole of the county, passes into Cambridgeshire in its way to the German Ocean. It is navigable in its whole extent through Huntingdonshire, and forms an important means of intercourse. The Nen enters from Northamp-

Hunting-
donshire.

tonshire, and runs to the marshes; it is also navigable along the greater part of its course. Besides these, the Cam passes through a part of the county. There are three lakes, viz. Whittlesea-mere, Ramsey-mere, and Ugg-mere; the first of these is the largest, and covers an area of several miles in extent. It affords excellent fishing, and pleasant sailing, which induces many parties of pleasure to visit it in the summer season. Projects for draining this lake have been formed, as the water is not deep, and the soil excellent; but they have not yet been carried into execution.

The county of Huntingdon scarcely contains any manufactures, excepting some spinning, performed by the females; but the improvements of machinery in other districts have much diminished that mode of employment. The only trade is that of corn, cattle, and the wool of the few flocks of sheep.

Agriculture is the principal pursuit of the district. The marshes and meadows are highly productive, and many oxen are fattened on them, without any other food than their natural grass. Much of this land is under the plough, and produces most abundant crops of oats and cole-seed; the mills for making the latter into oil are numerous. The hay produced from these fens is very considerable, but on the banks of the rivers they are subject to great floods, which sometimes destroy the harvest of the year. Though these lands are very valuable, yet the expense of draining them causes a great deduction from their value.

The soils in the upland parts of the county are various, but consist principally of a tenacious clayey loam, or of a deep gravelly loam with some clay. Much of this is in open common fields, where each occupier is compelled to follow a rotation like that of his neighbours. On the best of these lands the usual course of cropping is a year's fallow, then wheat or barley, next beans, and then barley or wheat. On the land of a quality somewhat inferior, a three-course rotation of fallow, wheat, and peas or beans, is pursued. In those fields which are calculated for turnips, that root is succeeded by barley and wheat, or by wheat and barley. The average produce of the lands is stated at five quarters of barley, four of oats, and three and a half of wheat, to the acre. The excellent practice of sowing clover between two corn crops is followed to a very small extent. The farms are generally small; few rentals exceed L.200 per annum.

The sheep of Huntingdonshire are a mixed race, composed of crosses of the Lincolnshire and Leicestershire breeds with the native kinds. They are without horns, and of very imperfect shape, but are found profitable from the quantity of wool they produce, their fleeces usually weighing from seven to eight pounds each. The sheep of the original race of the county are much inferior to those produced by the crossing with the better kinds; many of these are still found in the open commons, and their fleeces seldom exceed four pounds in weight. The cows are bred with little attention, and are a compound of many races. Very little butter or cheese is made, the principal object being the suckling of calves to supply veal for the London markets. Many horses are bred in the lower part of the county, but without much attention to their races. From this practice of breeding, it has become very general to execute all the agricultural work with mares.

The remains of antiquity in this county are principally of Roman origin; amongst them are the vestiges of the three roads which were constructed by that people across the country. The remains of Ramsey Abbey and Castle, the seat of the family from which Oliver Cromwell, a native of this county, sprung, are of venerable date. The monks who formerly occupied it were highly celebrated for their knowledge of the Hebrew language. The churches of Bluntisham, St Ives, and St Neots, and the Castle of Kimbolton, exhibit marks of high antiquity.

The most remarkable noblemen and gentlemen's seats are, Kimbolton, Duke of Manchester; Buccden Palace, Bishop of Lincoln; Connington Castle, J. Heathcote, Esq.; Elton, Earl of Carysfort; Hinchinbroke, Earl of Sandwich; Overton Longueville, Earl of Aboyne; Gains Hall, Sir James Duberly; Paxton Place, P. Stanley, Esq.; Ramsey, William Henry Fellowes, Esq.; Stirtloe, Launcelot Brown, Esq.; Stoughton, Earl Ludlow; and Upwood, Sir Richard Bickerton. (See Brayley's *Beauties of England and Wales*, Stone's *General View of Huntingdonshire*, and *Population Returns*.)

HUNTSPILL, a town of the county of Somerset, in the hundred of North Petherton, 155 miles from London. It stands on an estuary at the mouth of the river Parret, which there falls into the Bristol Channel. The inhabitants amounted in 1801 to 1012, in 1811 to 1119, in 1821 to 1337, and in 1831 to 1503.

HURD, RICHARD, an eminent and learned English prelate, was born at Congreve, in the parish of Penkrich, Staffordshire, on the 13th of January 1720. He was the second son of John and Hannah Hurd, whom he describes as "plain, honest, and good people, farmers, but of a turn of mind that might have honoured any rank and any condition;" and they appear to have been solicitous to give their son the best and most liberal education. Young Hurd received his elementary education at the grammar-school of Brerewood, and, in 1733, was admitted of Emmanuel College, Cambridge, though he did not go to reside there until a year or two afterwards. He took the degree of bachelor of arts in 1739, and that of master in 1742; the same year he was elected a fellow, and ordained deacon in St Paul's Cathedral, London; and in 1744 he was admitted into priest's orders at Cambridge. Dr Hurd's first literary production was *Remarks on Weston's Inquiry into the Rejection of the Christian Miracles by the Heathens*, published in 1746; and, in 1748, upon the conclusion of the peace of Aix-la-Chapelle, he contributed some verses to the university collection for 1749. In the same year he took the degree of bachelor of divinity, and published his *Commentary on the Ars Poetica of Horace*, in which he laboured to prove that the Roman poet has treated his subject with systematic order and the strictest method; an idea which has been strenuously combated by several eminent critics. In the preface to this Commentary he took occasion to compliment Warburton in a manner which won him the favour of that learned dogmatist, and procured for him a return in kind in the bishop's edition of Pope's works, where Hurd's Commentary is spoken of in terms of the highest approbation. This commerce of flattery gave rise to an intimacy between these persons, which continued unbroken during their lives, and is supposed to have exercised considerable influence on the opinions of Hurd, who was long considered as the first scholar in what has been termed the Warburtonian school. This Commentary was reprinted in 1757, with the addition of two Dissertations, one on the drama, the other on poetical imitation, and a letter to Mr Mason on the Marks of Imitation; in 1765, a fourth edition, corrected and enlarged, was published in three vols. 8vo, with a third Dissertation on the idea of universal poetry; and the whole was again reprinted in 1776. This work fully established the reputation of Hurd as an elegant and acute, if not always a sound and judicious critic. In May 1750, he was appointed by Sherlock, bishop of London, one of the Whitehall preachers. About this period the university of Cambridge was disturbed by internal divisions, occasioned by an exercise of discipline against some of its members who had been wanting in respect towards those invested with authority. The delinquents having refused to submit to the punishment awarded, and appealed from the vice-chancellor's jurisdiction to that of the senate, the

Huntspill
Hurd.

Hurd. right of the university, and those to whom its power was delegated, became thus a subject of discussion, and several pamphlets appeared on both sides of the question. Amongst those who signalized themselves on this occasion may be mentioned Hurd, who wrote *The Opinion of an eminent Lawyer (the Earl of Hardwicke) concerning the Right of Appeal from the Vice-Chancellor of Cambridge to the Senate, supported by a short historical account of the Jurisdiction of the University*; in answer to a pamphlet, entitled *An Inquiry into the Right of Appeal from the Vice Chancellor*, 1751, in 8vo; a production which passed through three editions, and was defended in a Letter to the Author of a Further Inquiry, 1752, in 8vo, by whom it had been attacked. In 1751, he published a Commentary on the Epistle to Augustus; in 1753, a new edition of both commentaries, with a dedication to Warburton; and the same year two occasional sermons, one preached at the Norwich assizes, and the other in behalf of the charity schools at Cambridge, but neither of which has been retained in his works. The friendship he had formed with Warburton continued to increase by mutual good offices; and, in 1755, Hurd eagerly embraced an opportunity which offered of evincing the warmth of his attachment. Dr Jortin having, in his *Dissertations*, spoken of Warburton with less deference and submission than the exactions of an overbearing and insolent superiority could easily tolerate, Hurd wrote a bitter satire, entitled the *Delicacy of Friendship*, a seventh Dissertation, addressed to the author of the sixth, 1755, in 8vo; a production in which he was betrayed into too close an imitation of Warburton's manner, and displayed a degree of warmth far beyond any thing that the supposed offence could either call for or justify. Hurd accordingly took pains to suppress the pamphlet; but, in 1788, it was republished in a volume entitled *Tracts by Warburton and a Warburtonian*. Hurd continued to reside at Cambridge, in learned retirement, if not learned ease, until 1756, when, on the death of Dr Arnold, he succeeded, as senior fellow of Emmanuel College, to the rectory of Thurcaston, to which he was instituted in 1757, and where, having entered into residence, he continued to prosecute his studies, which were principally confined to subjects of elegant literature. The *Remarks on Hume's Essay on the Natural History of Religion* appeared soon afterwards. But Warburton appears to have had the chief hand in the composition of that tract, which, accordingly, we find republished by Hurd in the quarto edition of that prelate's works, and enumerated in the list of them. It appears to have occasioned some uneasiness to Hume, who, in the account of his own life, notices it with a degree of acrimony quite unusual in his compositions. In 1759, Hurd published a volume of *Dialogues on Sincerity, Retirement, the Golden Age of Elizabeth, and the Constitution of the English Government*; and this was followed by his *Letters on Chivalry and Romance*, which, with his *Dialogues on Foreign Travel*, were republished in the year 1765, with the author's name, and a preface on dialogue writing. In the preceding year, he published another of those zealous tracts in vindication of Warburton, which have added little to his fame as a writer, and procured him the reputation of an illiberal and discourteous polemic. It was entitled a "Letter to the Reverend Dr Thomas Leland, in which his late *Dissertation on the Principles of Human Eloquence* is criticised, and the Bishop of Gloucester's idea of the nature and character of an inspired language, as delivered in his Lordship's *Doctrine of Grace*, is vindicated from all the objections of the learned author of the *Dissertation*." This, with Hurd's other controversial tracts, has been republished in the eighth volume of the authorized edition of his works, where we find prefixed to it, by way of advertisement, the following lines, written by the author not long before his death: "The controversial tracts

which make up this volume were written and published by the author at different times, as opportunity invited, or occasion required. Some sharpness of style may be objected to them, in regard to which he apologises for himself in the words of the poet:

..... Me quoque pectoris
Tentavit in dulci juvena
Fervor
..... nunc ego mitibus
Mutare quero tristia."

In 1762, the sinecure rectory of Folkton was conferred on him by Lord Chancellor Northington; in 1765, he was chosen preacher of Lincoln's Inn; and in August 1767, he was collated to the archdeaconry of Gloucester by Bishop Warburton. In July 1768, he was admitted doctor of divinity at Cambridge; the same day he was appointed to open the lecture founded by Warburton for the illustration of the prophecies; and the *Twelve Discourses* which he preached there were published in 1772, under the title of an *Introduction to the Study of the Prophecies concerning the Christian church, and in particular concerning the church of Papal Rome*. This volume drew from Gibbon, under a fictitious name, a private letter to the author respecting the book of Daniel, which Dr Hurd answered; but it was not until the appearance of the historian's *Miscellaneous Works*, in which Dr Hurd's answer was printed, that the latter knew the name of his correspondent. In 1769, he published the *Select Works of Abraham Cowley*, with a preface and notes, in two vols. 8vo; an edition which has been condemned as interfering with the totality of Cowley's works, and which certainly is not the most judicious of Dr Hurd's undertakings. In 1775, he was, by the recommendation of Lord Mansfield, promoted to the bishopric of Lichfield and Coventry, consecrated early in that year, and, soon after entering on the episcopal office, he delivered a charge to the clergy of the diocese, as well as a Fast Sermon for "the American rebellion," which was preached before the House of Lords. In May 1781, Bishop Hurd received a gracious message from his majesty, conveying to him an offer of the see of Worcester, with the clerkship of the closet, both of which he accepted. Nor did his majesty's kindness stop here. For, on the death of Dr Cornwallis, in the year 1783, he was offered the archiepiscopal see of Canterbury, with many gracious expressions, and even pressed to accept it; but he humbly begged leave to decline it, "as a charge not suited to his temper and talents, and much too heavy for him to sustain in these times," alluding, we presume, to the distractions arising from the conflict of political parties. In 1788, Hurd published a complete edition of the works of Warburton, in seven vols. 4to; but the *Life* did not appear until 1795, when it came forth under the title of a *Discourse by way of General Preface to the quarto edition of Bishop Warburton's works, containing some account of the Life, Writings, and Character of the Author*. This work excited considerable attention, and the style is equally remarkable for its purity and elegance; but the stream of panegyric is too uniform not to subject the author to the suspicion of long-confirmed prejudices. Even the admirers of Warburton would have been content with less laborious efforts to magnify him at the expense of all his contemporaries; and, conscious that imperfection is the common lot of all men, they conceived that age and reflection should have abated, if not wholly extinguished, the unworthy animosities of times gone by. But in all this they were disappointed. Hurd was a true disciple of the great dogmatist; and hence it was with regret they observed the worst characteristics of Warburton, his inveterate dislikes, his fierce contempt, and his sneering rancour, still employed to perpetuate his personal antipathies, and employed too against such men as Secker and Lowth. If these were the feelings

Hurdle
Hurdwar.

of the friends who venerated Warburton and esteemed Hurd, others, who never had much attachment to the Bishop of Gloucester or his school, found little difficulty in accumulating against his biographer charges of gross partiality and illiberal abuse. The remainder of Hurd's life appears to have been spent in the discharge of his episcopal duties, and in studious retirement. He died on the 28th of May 1808, being then in his eighty-ninth year. As a writer, his taste, learning, and talents have been universally acknowledged; and though, like his master, contemptuous and intolerant, he was nevertheless shrewd, ingenious, and original. In his private character he is said to have been in all respects amiable; nor were the relations of life in any degree embittered by the gall and wormwood which so frequently flowed from his pen. (A.)

HURDA, a town and small fort of Hindustan, in the Mahratta territories, in the province of Khandesh, situated in a country generally open and well cultivated. Long. 77. 18. E. Lat. 22. 24. N.

HURDLE is the name of a sledge used to draw traitors to the place of execution. The Romans had a kind of military execution for mutineers, called *putting to death under the hurdle*. The manner of it was this: The criminal was laid at his length in shallow water, under an hurdle, upon which were heaped stones, and so pressed down until he was drowned.

HURDLES, in *Fortification*, are made of twigs of willows or osiers interwoven together, and sustained by long stakes. They are made in the figure of an oblong square, the length being five or six feet, and the breadth three and a half. The closer they are wattled together the better. They serve either to render the batteries firm, or to consolidate the passage over muddy ditches, or to cover traverses and lodgments for the defence of the workmen against fireworks or stones thrown against them.

HURDLES, in *Husbandry*, certain frames made either of split timber, or of hazel-rods wattled together, to serve as gates in enclosures, or to make sheep-folds, &c.

HURDWAR, or **HAREDWARA**, a town of Hindustan, province of Delhi, a great mart of commerce, and a celebrated place of Hindu pilgrimage, situated on the west side of the Ganges, where it issues from the northern hills. The town is not large, having only one street about fifteen feet in breadth, and one furlong and a half in length. Pilgrims of both sexes resort annually thither from all parts of India to perform their ablutions in the sacred Ganges. The month of April is the time appointed for this concourse of pilgrims; and great numbers of merchants also attending, one of the largest fairs known in Hindustan is held here. It is calculated that in general about 300,000 persons are collected on this occasion; but once in twelve years, when particular ceremonies are observed, the number is increased to a million. In April 1809, it was computed that two millions of strangers were assembled. The chief articles brought thither for sale are horses, mules, camels, tobacco, antimony, assafoetida; dried fruits from Cabul, Candahar, Moultan, and the Punjab; chawls, cloaks, &c. from Cashmere and Amritsir; spotted turbans, looking glasses, toys, with various manufactures in brass and ivory, from Jeypoor; shields from Rohilcund, Lucknow, and Silhet; bows and arrows from Moultan and the Doab; rock-salt from Lahore; baftas and piece-goods from Rahn, a large city in the Punjab; many camels, and a species of flannel, from the Marwar country; and from the Company's provinces Kharwa muslins, sarsnet, cocoa nuts, and woollen cloths of a coarse quality. The merchants who frequent this fair travel in large caravans, and are frequently infested on the roads by freebooters, who watch their opportunity and cut off stragglers. During the Mahratta dominion, a poll tax and heavy duties were imposed on all the cattle. But these have all been repealed by the British,

and every encouragement is now held out to merchants. In such a vast concourse of people from all quarters, disputes were formerly very frequent. But, owing to the strict police maintained by the British, these fairs have lately ended without bloodshed, to the surprise and satisfaction of the vast multitude, who were accustomed to see bloody quarrels at the Hurdwar fair. The stream divides itself into three channels at Hurdwar, the principal of which is on the western side, running along a bank named Chandnee Ghaut. At the foot of the pass into the mountains is a Goorkah fort, belonging to Nepaul, to which many hundreds of slaves are annually brought down from the hills and exposed to sale. The travelling distance from Calcutta by Moorsheadabad is 1080 miles, by Birbhoom 975 miles, from Delhi 117 miles, and from Lucknow 311 miles. Long. 78. 2. E. Lat. 29. 57. N.

HURLY-BURLY, in vulgar language, denotes confusion or tumult, and is said to owe its origin to two neighbouring families, Hurleigh and Burleigh, which filled their part of the kingdom with contest and violence.

HURON, a vast lake of North America, situated between the 80th and 84th degrees of west longitude, and between the 43d and 46th degrees of north latitude; from which the country contiguous to it is called the country of the Hurons, a people whose language is spoken over a great extent of America.

HURREEPORE, in Hindustan, the capital of a district of the same name belonging to the Sikhs, which is situated between the 32d and 33d degrees of north latitude, and is intersected by the Beyah river. The town is situated in the province of Lahore, 100 miles east-north-east from the city of Lahore. Long. 75. 31. E. Lat. 24. 19. N.

HURRIAL, a town of Bengal, district of Rajesky, where the East India Company have a commercial residency for the purchase of cloths. The adjoining country is under water during the rainy season, and the town can only at that time be approached in boats. Long. 89. 17. E. Lat. 24. 19. N.

HURRICANE, a general name for any violent storm of wind, but commonly applied to those storms which happen in the warmer climates, and greatly exceed the most violent storms known in Europe.

HURST, **HYRST**, or **HERST**, are derived from the Saxon *hyrst*, meaning a wood, or grove of trees. There are many places in Kent, Sussex, and Hampshire, which begin and end with this syllable; and the reason may be, because the great wood called *Andreswald* extended through these counties.

HUSBANDRY, as defined by some, includes not only agriculture, but several other branches connected with it, such as the rearing of cattle, the management of the dairy, making butter and cheese, raising flax, timber, and so forth. See **AGRICULTURE**.

HUSKISSON, **RIGHT HONOURABLE WILLIAM**, a distinguished statesman, was born at Birch Moreton, in Worcestershire, on the 11th of March 1770. After receiving a liberal education, he was sent to Paris for instruction in physic, the profession to which he was originally destined. Whilst in the French capital, however, circumstances occurred which induced him entirely to alter his course of life. On the breaking out of the French revolution, he espoused the popular side, and became an active member of the London Corresponding Society, but not, as has been sometimes asserted, of the Jacobin Club of Paris. Through the influence of a friend he was introduced to Lord Gower, then British ambassador at Paris, and was afterwards appointed his private secretary. On his return to England, the talents of Mr Huskisson attracted the attention of Mr Pitt and Mr Dundas, and in 1795 he was appointed chief clerk in the office of the latter, at that time

Hurly.
Burly
Huskisson.

Huskisson, secretary of state for the war department. In the following year he succeeded to the office of under secretary; and being found a valuable man of business, he was brought into parliament for the borough of Morpeth. In his subordinate connection with the ministry, Mr Huskisson shared the varying fortunes of those in power, retiring from office and returning to it with his superiors. During the early part of his parliamentary career he did not speak much, but he was exceedingly useful to the ministry in matters of business, particularly of a financial nature. On the return of Mr Pitt to power in 1804, he was appointed one of the joint secretaries to the treasury. During Mr Fox's short administration he was in opposition, but he returned with Mr Percival, and resumed his secretaryship. As a politician Mr Huskisson belonged to that party of which Mr Canning was the head, and which first assumed a distinct character in 1809, when the latter statesman proclaimed his difference from Lord Castlereagh, and left the ministry. Mr Huskisson retired along with him, and continued to follow in that middle course which Mr Canning pursued, voting with ministers upon questions of general policy both foreign and domestic, but contending, with the opposition, for the necessity of retrenchment in the public expenditure. Being placed on the celebrated Bullion Committee, Mr Huskisson published an able pamphlet on the subject, entitled *The Question concerning the Depreciation of our Currency stated and examined*. In this tract Mr Huskisson defended the principles embodied in the report of the committee, and showed the necessity of the bank resuming cash payments. He afterwards took a prominent part in various debates on finance, in all of which he was listened to by the house with the greatest attention. In 1812 he obtained the lucrative situation of colonial agent for Ceylon; and in 1814 he was sworn a privy councillor, and appointed the first commissioner of woods and forests. His subsequent efforts in parliament were characterized by that middle course of policy which he had hitherto followed. On Mr Canning's appointment as secretary of state in 1822, and his declining to be re-elected for Liverpool, Mr Huskisson was chosen as his successor. In the following year he was appointed treasurer of the navy, and afterwards president of the board of trade. The part which Mr Huskisson took in the great questions brought before parliament from the year 1820 till the close of his life, will be found fully detailed in the article *BRITAIN*. In the ministry of Lord Goderich he became secretary for the colonies, which post he retained under that of the Duke of Wellington; but having voted against government on a question of importance, he placed his office at the duke's disposal, and his resignation was accepted. His death took place on the 15th of September 1830. Being present at the opening of the Liverpool and Manchester railway, he came inadvertently in the line of one of the carriages, moving at a rapid rate, and the vehicle having passed over one of his legs, lacerated it in such a dreadful manner that he died soon after. The speeches of Mr Huskisson are characterized by little of that which in ordinary language is called eloquence. They are distinguished for clear, distinct statement, lucid arrangement, close adherence to the matter in hand, continuous reasoning, and a thorough knowledge of the subject discussed, in all its bearings and details. The strength of his oratory lay in the soundness and comprehensiveness of his views, particularly in all questions of political economy and commercial legislation. On such subjects he rose far above the majority of his parliamentary contemporaries, both in the extent of his information, and in the scientific character of his reasoning. He was, indeed, one of the few practical statesmen who could deal alike with matters of detail and the principles of the science by which they are illustrated. No debater ever came better prepared with facts and details bearing directly upon his subject, of which

VOL. XI.

he always made himself completely master. His speeches are therefore exceedingly instructive, as well for their facts as for their reasonings. A collection of them was published in 1831, in three vols. 8vo. (R. E. R.)

HUSSARS, a term which originally signified the national cavalry of Hungary and Croatia, a species of light horse, which acted as irregular troops, and in that capacity were found highly serviceable. Hussars were first introduced into the French service in 1692, when they were formed on the model of the Hungarian cavalry, which had been subsidised by France before the reign of Louis XIII. In all the European armies of the present day, hussars are light horse, and differ from light dragoons only in some peculiarities of dress and equipment.

HUSSEINPOOR, a town of Hindustan, in the province of Delhi and district of Bareilly, sixty-five miles east from Delhi. Long. 78. 13. E. Lat. 28. 44. N.

HUSSENABAD, a town of Hindustan, in the province of Khandesh, and belonging to the Mahrattas. It is situated on the south side of the Nerbuddah, sixty miles south from Bilsah. Long. 77. 53. E. Lat. 23. 40. N.

HUSSITES, in *Ecclesiastical History*, a party of reformers, the followers of John Huss. The person from whom the Hussites take their name was born in a little village in Bohemia, called Huss, and lived at Prague in the highest reputation, both on account of the sanctity of his manners and the purity of his doctrine. He was distinguished by his uncommon erudition and eloquence, and discharged at the same time the functions of professor of divinity in the university, and of ordinary pastor in the church of that city. He adopted the sentiments of Wickliffe, and the Waldenses; and in the year 1407 began openly to oppose and preach against various errors in doctrine, as well as corruptions in point of discipline, which then prevailed in the church. Huss likewise endeavoured to the utmost of his power to withdraw the university of Prague from the jurisdiction of Gregory XII., whom the kingdom of Bohemia had hitherto acknowledged as the true and lawful head of the church. This occasioned a violent quarrel between the incensed Archbishop of Prague and the zealous reformer, which the latter inflamed and augmented from day to day by his pathetic exclamations against the court of Rome, and the corruptions that prevailed amongst the sacerdotal order.

But there were other circumstances which contributed to inflame the resentment of the clergy against him. He adopted the philosophical opinions of the realists, and vehemently opposed and even persecuted the nominalists, whose number and influence were considerable in the university of Prague. In the year 1408 he also increased the bitterness of his enemies, by procuring a sentence in favour of the Bohemians, who had disputed with the Germans concerning the number of suffrages which their respective nations were entitled to in all matters that were carried by election in this university. In consequence of a decree obtained in favour of the former, which restored them to their constitutional right of three suffrages, usurped by the latter, the Germans withdrew from Prague, and, in the year 1409, founded a new academy at Leipsic. This event had no sooner happened than Huss began to inveigh with greater freedom than he had before done against the vices and corruptions of the clergy, and to recommend, in a public manner, the writings and opinions of Wickliffe, as far as these related to the papal hierarchy, the despotism of the court of Rome, and the corruption of the clergy. Hence, in the year 1410, an accusation was brought against him before the tribunal of John XXIII. by whom he was solemnly expelled from the communion of the church. Notwithstanding this sentence of excommunication, he proceeded to expose the errors and vices of the Roman Ca-

Hussars
Hussites.

5 D

Hustings tholic church, with a fortitude and zeal that were almost universally applauded.

Husum.

This eminent man, whose piety was equally sincere and fervent, though his zeal was perhaps too violent, and his prudence not always circumspect, was summoned to appear before the council of Constance. Secured, as he apprehended, from the rage of his enemies by the safe-conduct granted him by the Emperor Sigismund for his journey to Constance, his residence in that place, and his return to his own country, John Huss obeyed the order of the council, and appeared before it to demonstrate his innocence, and to prove that the charge of his having deserted the church of Rome was entirely groundless. However, his enemies so far prevailed, that by a scandalous breach of public faith he was cast into prison, declared a heretic because he refused to plead guilty, in obedience to the orders of the council, and burned alive in 1415; a punishment which he endured with unparalleled magnanimity and resignation.

The same unhappy fate was reserved for another reformer, Jerome of Prague, his intimate companion, who attended the council in order to support his persecuted friend. Jerome, indeed, was terrified into temporary submission; but he afterwards recovered his fortitude, and maintained the opinions, which he had for a while deserted through fear, amidst the flames, in which he expired in 1416.

The disciples of Huss adhered to their master's doctrine after his death with a zeal which broke out into an open war, that was carried on with the most unparalleled barbarity. John Ziska, a Bohemian knight, in 1420 put himself at the head of the Hussites, who had now become a considerable party, and threw off the yoke of Sigismund, who had treated their brethren in the most cruel and barbarous manner. In the year 1424, Ziska was succeeded by Procopius. The acts of barbarity committed on both sides were shocking and horrible; for notwithstanding the irreconcilable opposition between the religious sentiments of the contending parties, they both agreed in this one detestable principle, that it was innocent and lawful to extirpate by fire and sword the enemies of the true religion; and as such they reciprocally considered each other. But, by the interference of the council of Basil, in the year 1433, these commotions in a great measure subsided, and peace was at length restored. The Hussites, who were divided into two parties, viz. the Calixtines and Taborites, spread over all Bohemia and Hungary, and even Silesia and Poland; and some remains of them still subsist in those parts.

HUSTINGS (from the Saxon word *hustinge*, meaning *concilium* or *curia*), a court held in Guildhall before the lord mayor and aldermen of London. This court is very ancient, as appears by the laws of Edward the Confessor. Some other cities have likewise had a court bearing the same name, as Winchester and York. But this term is now applied to those temporary structures where the business of elections is conducted.

HUSTNAPORE, or **HUSTINAGARA**, formerly one of the most ancient and famous cities of Hindustan, in the province of Delhi, and for ages the capital of a powerful Hindu dynasty, of which the remote history is involved in obscurity. It was founded by Rajah Hasti, and is much celebrated in the Hindu mythological poems. This city has long been in ruins, and is now covered with large ant-hills. It is about twenty miles south-west from Darranagur, on a branch of the Ganges, formerly the bed of that river. Long. 77. 56. E. Lat. 29. 7. N.

HUSUM, a city of Denmark, in the province of Sleswick, the capital of a bailiwick of its own name, at the mouth of the river Hever. It contains several public buildings, 800 houses, and 3700 inhabitants, and was, during one

period of the revolutionary war, from being neutral, converted into a place of great trade in colonial produce, which was conveyed from the stores in Heligoland, and distributed over the continent by smugglers. Long. 9. 6. E. Lat. 54. 32. N.

HUSZK, a market-town of the circle of Marmaros, in the province of Hither Theiss, in Hungary, composed of two parts, Koszeg and Boryana, containing a Catholic, a Unitarian, and a Reformed church, and 4200 inhabitants. Long. 23. 42. 42. E. Lat. 43. 9. 11. N.

HUTCHESON, **DR FRANCIS**, an eminent philosopher, was the son of a dissenting minister in the north of Ireland, and was born on the 8th of August 1694. He early discovered a superior capacity; and having gone through a school education, began his course of philosophy at an academy, whence he removed to the university of Glasgow, where he applied himself to the study of literature, in which his progress was commensurate with his uncommon abilities.

He then returned to Ireland, and having entered into the ministry, was just about to be settled in a small congregation of dissenters in the north of Ireland, when some gentlemen near Dublin, who knew his great abilities and virtues, invited him to open a private academy in that city. He complied with this invitation, and met with entire success. He had been established but a short time in Dublin, when his singular merits and accomplishments made him generally known; and his acquaintance was sought by men of all ranks who had any taste for literature, or any respect for learned men. Lord Viscount Molesworth is said to have taken great pleasure in his conversation, and to have assisted him with his criticisms and observations upon his Inquiry into the Ideas of Beauty and Virtue, before it was published. He received the same favour from Dr Synge, bishop of Elphin, with whom he also lived in close friendship. The first edition of this work appeared without the author's name, but the merit of the performance was such that he could not long remain concealed. So great was the reputation of the work, and the ideas it had raised of the author, that Lord Granville, who was then lord lieutenant of Ireland, sent his private secretary to inquire at the bookseller's for the author, and when he could not learn his name, he left a letter to be conveyed to him; in consequence of which Hutcheson soon became acquainted with his excellency, and was treated by him, all the time he continued in the government, with distinguished marks of favour and esteem.

From this time his acquaintance began to be still more courted by men of distinction, whether for station or for literature, in Ireland. Archbishop King, the author of the well-known book *De Origine Mali*, held him in high esteem; and the friendship of that prelate was of great use to him in screening him from two different attempts made to prosecute him for daring to take upon him the education of youth, without having qualified himself by subscribing the ecclesiastical canons, and obtaining a license from the bishops. He also enjoyed a large share in the esteem of the primate Boulter, who through his influence made a donation to the university of Glasgow, of a yearly fund for an exhibitioner, to be bred to any of the learned professions. A few years after the publication of his Inquiry into the Ideas of Beauty and Virtue, his Treatise on the Passions was published. Both these works have often been reprinted, and always admired for the sentiment and language, even by those who have not assented to the philosophy they teach, nor allowed it to have any foundation in nature. About this time he wrote some philosophical papers accounting for laughter, in a way different from that suggested by Hobbes, and more honourable to human nature; which papers were published in the collection called *Letters of Hibernicus*.

Husak
Hutche-
son.

Hutchin-
son
Huttany.

After he had taught in a private academy at Dublin for seven or eight years with great reputation and success, he was in the year 1729 called to Scotland to become professor of ethical philosophy in the university of Glasgow. Several young gentlemen came along with him from the academy, and his high reputation drew many more thither both from England and Ireland. Here he spent the remainder of his life, in a manner highly honourable to himself, and ornamental to the university of which he was a member. His time was divided between his studies and the duties of his office, except what he allotted to friendship and society. A firm constitution, and a pretty uniform state of good health, except some few slight attacks of the gout, seemed to promise a long life; yet he did not survive the fifty-third year of his age. He was married, soon after his settlement in Dublin, to Mrs Mary Wilson, a gentleman's daughter in the county of Longford, by whom he left one son, Francis Hutcheson, doctor of medicine, who published, from the original manuscript of his father, *A System of Moral Philosophy*, in three books, by Francis Hutcheson, LL. D. Glasgow, 1755, in two volumes 4to. See the Dissertations prefixed to this Work by Mr Dugald Stewart and Sir James Mac-kintosh.

HUTCHINSON, JOHN, a philosophical writer, whose notions have made no inconsiderable noise in the world, was born in 1674. He served the Duke of Somerset in the capacity of steward, and in the course of his travels from place to place employed himself in collecting fossils. We are even told that the large and noble collection bequeathed by Dr Woodward to the university of Cambridge was actually made by him, and even unfairly obtained from him. When he left the duke's service to indulge his studies with more freedom, the duke, then master of the horse to George I. made him his riding surveyor, a kind of sinecure place of L.200 a year, with a good house in the Meuse. In 1724 he published the first part of Moses's *Principia*, in which he ridiculed Dr Woodward's Natural History of the Earth, and attacked the doctrine of gravitation established in Newton's *Principia*. In 1727 he published a second part of Moses's *Principia*, containing the principles of the Scriptural Philosophy. From this time till his death he published a volume every year or two, which, with the manuscripts he left behind him, were published in 1748, in twelve vols. 8vo. On the Monday before his death, Dr Mead urged him to be bled, saying pleasantly, "I will soon send you to Moses," meaning to his studies; but Mr Hutchinson taking it in the literal sense, answered in a muttering tone, "I believe, doctor, you will," and was so displeased that he dismissed him for another physician, but he died in a few days afterwards, on the 28th of August 1737. Singular as his notions appear, they are not without some defenders, who have obtained the appellation of *Hutchinsonians*. The reader may find a distinct and comprehensive account of the Hutchinsonian system in a book entitled *Thoughts concerning Religion*, printed at Edinburgh in 1743; and in a letter to a bishop, annexed to it, first printed in 1732.

HUTTANY, a town of Hindustan, in the Mahratta territories, and province of Bejapoor. It is large and populous, and has an extensive commerce with Bombay, Surat, Rachore, &c. It possesses a small stone citadel, and is enclosed with a rampart and a ditch. It has also a large and excellent place of accommodation for travellers, built of free stone, which is capable of lodging 500 travellers. It formerly belonged to the Mahommedan king of Bejapoor, but was taken by the Mahrattas about the middle of the seventeenth century. It was retaken by the Mahommedans in 1679, when many of the inhabitants were carried into captivity and sold as slaves. Af-

ter the death of Aurungzebe it again fell into the hands of the Mahrattas. Long. 75. 20. E. Lat. 16. 59. N.

HUTTON, DR JAMES, physician and naturalist, was the son of Mr William Hutton, a respectable merchant in Edinburgh. He was born on the 3d of June 1726, and having lost his father while he was very young, the charge of his education devolved on his mother, who determined that it should be very liberal. Having finished his grammar-school education at the high school of Edinburgh, he entered the university at the age of fourteen, in the year 1740. He always considered himself as greatly indebted to Professor Stevenson's lectures on logic, not because they made him a logician, but because they accidentally gave him a predilection for chemistry, which he retained and cherished to the close of life. As an illustration of some particular doctrine, the professor observed, that whilst the acids can singly dissolve the baser metals, they must unite their strength before they can have any influence upon gold; that metal is only to be dissolved by nitro-muriatic acid, formerly denominated *aqua regia*. From this remark he found his thirst for chemical knowledge daily increase, and sought for information from every quarter.

He always evinced talents sufficient to encourage the prosecution of his studies; but it was the wish of his friends that he should turn his attention to business, and with this he complied, though contrary to his own inclinations. In 1743 he was put as an apprentice to Mr George Chalmers, writer to the signet, where he soon discovered the ruling propensity of his mind; for when he should have been transcribing law papers, he was amusing his fellow apprentices with experiments in chemistry. Mr Chalmers perceiving this, generously freed him from his obligations to serve him, desiring him to turn his attention to some other employment more congenial to his views. He fixed his choice on the study of medicine, as nearly related to his favourite pursuits; and after spending about three years at Edinburgh, he studied two years at Paris; and returning home by the Low Countries, took his degree of doctor of medicine at Leyden, in September 1749. The subject of his thesis was, *De Sanguine et Circulatione in Microcosmo*.

When he arrived in London, about the end of 1749, he conceived the design of settling in the world. He justly conjectured that Edinburgh did not hold out for him any flattering prospects in the capacity of physician, as the principal practice was in the hands of a few eminent physicians who had been long established. He accordingly wrote to his friends in Edinburgh with much anxiety as to the subject of his future prospects in life. To Mr James Davie, a young man of nearly his own age, with whom he contracted a friendship which death only could extinguish, he also communicated the perplexed state of his mind. Their mutual knowledge of the nature of sal-ammoniac led them to establish this manufacture, which afterwards became a most lucrative concern to both. The sentiments of Mr Davie were communicated to Dr Hutton while yet in London, which probably was the chief reason why he resolved to abandon entirely the practice of physic.

On his return to Edinburgh, in the year 1750, he resolved to devote all his attention to agriculture, which might probably be occasioned by his having succeeded to a small property in Berwickshire on the death of his father. Professor Playfair of the university of Edinburgh has ascribed it, and we apprehend with great propriety, to the native simplicity of his character, and the moderation of his views, which were always free from ambition. His attachment to the life of a farmer was increased by his acquaintance with Sir John Hall of Dunglass, a gentleman who was very ingenious, a friend and lover of science, and one who well understood agriculture. Determined

Hutton.

Hutton. to make himself master of rural economy, Dr Hutton went into the county of Norfolk, where he continued for some time in the house of a farmer, who was at once his preceptor and his host. The farmer's name was John Dybold, whose practical knowledge of agriculture Dr Hutton always mentioned in terms of the highest respect.

During his residence in this county, which was to him a paradise, he made frequent excursions into different parts of England; and although information respecting rural economy was the great and primary object of his pursuit, yet it was here that he first commenced the study of mineralogy, to serve him as an amusement on the road. He acquainted his friend Sir John Hall that he had become remarkably fond of studying the surface of the earth, and was narrowly examining every pit, or ditch, or bed of a river that fell in his way. The agricultural knowledge he acquired in Norfolk increased his desire to pay a visit to Flanders, the only place in Europe where husbandry can boast of very great antiquity. He set out accordingly in the spring of 1754, and returned to England during the summer of the same year. Soon after his arrival in London he observed, in a letter to Sir John Hall, "had I doubted of it before I set out, I should have returned fully convinced that they are good husbandmen in Norfolk."

About this time he returned to his native country, and was for some time at a loss what place to fix upon for the purpose of carrying into effect his agricultural improvements. His own farm at length became his choice, and a ploughman whom he had brought with him from Norfolk gave the first specimen of excellent tillage ever exhibited in that part of Scotland. To Dr Hutton the country is indebted for the introduction of the new husbandry into a county where it may be said to have made more astonishing progress than in almost any other part of the British empire. In the year 1764 he made an excursion into the north of Scotland, in company with Commissioner, afterwards Sir George Clerk, a man of singular worth and abilities. They proceeded to Crieff, Dalwhinnie, Fort Augustus, and Inverness, and returned along the coast by Aberdeen to Edinburgh. To increase his knowledge of geology was Dr Hutton's chief aim in this tour, to which he had now determined to pay the most unremitting attention. About the year 1768 he devoted his whole time to scientific pursuits, and having met with a favourable opportunity of letting his farm to advantage, he took up his residence in Edinburgh. He now turned his attention very much to the study of chemistry, and we believe he was the first who discovered that mineral alkali is contained in zeolite. The same fact has since been confirmed by the experiments of that celebrated mineralogist M. Klaproth, as well as by those of Dr Kennedy, which have led to others of a similar nature.

Dr Hutton gave to the world his first publication in 1777, which was a small pamphlet of thirty-seven pages, entitled *Considerations on the nature, quality, and distinctions of Coal and Culm*. It was designed to answer a question which began to be much agitated, whether the small coal of Scotland is the same with the culm of England; and whether it ought to be carried coastwise free of all duty. This created a keen contest between the proprietors and revenue officers, the one insisting that it should, and the other that it should not pay any duty. It was discussed before the board of customs in Scotland, and even occupied the attention of the privy council. The small coal of Scotland was finally exempted from the payment of duty, to which the pamphlet of Dr Hutton greatly contributed.

During a period of thirty years the attention of the doctor was turned towards geological studies, to qualify him for writing on his favourite topic, a new theory of the

earth. Long before that theory made its appearance in the world, he had completed the outline of it, which, however, was shown only to a few confidential friends. He was first induced to publish it by communicating an abridgment of it to the Royal Society of Edinburgh. Of the merits or defects of this celebrated theory this is not the place to speak. It found a very able advocate in Professor Playfair, whose Illustrations must ever be regarded as one of the finest specimens of philosophical writing that our language can boast of.

A theory of rain from the same author appeared in the first volume of the Edinburgh Transactions. He had made meteorology his study for a considerable time; and his theory has been pronounced one of the few to be met with in that department of knowledge which is deserving of consideration. Soon after this publication, Dr Hutton gave the world, in three volumes quarto, *An Investigation of the Principles of Knowledge, and of the Progress of Reason from Sense to Science and Philosophy*. This work never attracted any notice. His elements of agriculture, the result of much study and long experience, was the last work which he seemed anxious to publish; but it was left in manuscript at his death, which took place in 1797.

To the name of philosopher Dr Hutton was most justly entitled, by reason of his natural talents, acquisitions, and temper. The direction of his studies was rather uncommon and irregular; but for that very reason it was peculiarly fitted to develop that quick penetration and originality of thought, by which his intellectual character was strikingly marked. The greatest acquisitions of wealth and fortune never excited more lively sensations of pleasure in the minds of men, than those which arose in the mind of Dr Hutton on hearing of a new invention, or on being made acquainted with a new truth. This pleasure, which appeared almost ridiculous to those who could not enter into his views, was not confined to any one branch of science; for, in the language of Professor Playfair, "he would rejoice over Watt's improvements on the steam-engine, or Cook's discoveries in the South Sea, with all the warmth of a man who was to share in the honour or the profit about to accrue from them." Dr Hutton was not exclusively attached to the company of men of letters, whose conversation was entirely directed to subjects of literature; for he could occasionally unbend himself, and enjoy the innocent hilarity of promiscuous company, when he freely indulged in the gratification of his native pleasantries. An admirable account of his life, written by Professor Playfair, was published in the Transactions of the Royal Society of Edinburgh.

HUY, a town of the Netherlands, in the province of Liege, the capital of a circle of the same name. It has a very strong fortress, commanding the passage over the river Meuse, to which the great road leads. It is surrounded with vineyards, and is the seat of some manufactures, and it contains 800 houses, with 5647 inhabitants. Long. 4. 12. E. Lat. 50. 31. N.

HUYGENS DE ZUYLICHEM, CHRISTIAN, lord of Zeelhem, was the second son of Constantine Huygens, secretary and counsellor to the princes of Orange, and born at the Hague on the 14th of April 1629. He was one of those rare men who, from the most subtle theories, know how to deduce the most useful applications, and whom admirable inventions in the arts, as well as the sciences, place on the same level with the Archimedeses and the Newtons. His family, originally from Brabant, was rich and respected; and the important post which his father held under three successive princes of Orange had been filled by his grandfather, as it subsequently was by his elder brother Constantine, who in this capacity attended King William in the celebrated expedition to England, which

Huy
I
Huygens

Huygens. issued in the Revolution of 1688. His father, a distinguished man of letters, whose poetical compositions had attained much celebrity, was not slow in remarking the happy qualities of his genius, and, full of paternal solicitude for his improvement, became his first instructor. He early taught his son music, arithmetic, and geography; and, about the age of thirteen, initiated him in the knowledge of mechanics, for which young Huygens showed a surprising aptitude. At fifteen he received the assistance of a master in the mathematics, a geometer of Amsterdam named Stampioen, of whom Descartes has left an unfavourable impression, but who in a short time enabled his pupil to make great progress. At the age of sixteen he was sent to Leyden to study law under the learned jurisconsult Vinnius; who dedicated to him his Commentary on the Institutions; but he did not permit jurisprudence to divert him from his mathematical studies, which he prosecuted at this place, as well as afterwards at Breda, where an university had been erected, and where, being placed under the direction of his father, he resided from 1646 to 1648. In these two cities he had as masters two very able geometers, Francis Schooten and John Pell; and his first essays were so successful that they attracted the notice of Descartes, to whom the author had communicated them. The genius of this great man divined instinctively that of Huygens. "It is some time," said he, in a letter written at this period, "since Professor Schooten sent me a writing by the second son of M. de Zuyllichem touching a mathematical invention which he had attempted to make; and although he has not yet found his account in the pursuit (which is not wonderful, seeing he sought a thing which no one has ever been able to find), yet he has taken such a bias towards geometry, that I feel assured he will become excellent in that science, of which I scarcely see any one who knows any thing." On his part, the young geometer was filled with admiration of the great philosopher; and he wrote to Father Mersenne that, for ages, no one comparable to him had appeared. Nevertheless, Huygens had not the good fortune to see him. Descartes had quitted Holland, and when, in 1649, Huygens, having left the university, travelled with Henry Count de Nassau, he regretted much not having it in his power to pass from Denmark to Sweden, whither Descartes had repaired, out of complaisance to the imperious Christina. After this tour, he settled in his native country; and it was then that he commenced that series of inventions which have rendered his name so justly celebrated. In 1651 he published at Leyden his *Theoremata de quadratura Hyperboles, Ellipsis, et Circuli, ex dato portione gravitatis centro*; a work which afforded a favourable specimen of his genius for mathematics, and gave promise of still greater excellence. In 1655 he travelled into France, and took the degree of doctor of laws at Angers. In 1658 he published at the Hague his *Horologium oscillatorium, sive de motu pendulorum*. In a preceding work, entitled *Brevis Institutio de usu Horologiorum ad inveniendas longitudoines*, he had exhibited a model of a newly-invented pendulum; but as some persons, envious of his reputation, laboured to deprive him of the honour of the invention, he wrote his *Horologium oscillatorium* to explain the construction of his pendulum, and to show that it differed from the astronomical pendulum invented by Galileo. In 1659 he published his *Systema Saturninum, sive de causis mirandorum Saturni phenomenon, et comite ejus planeta novo*. Galileo had endeavoured to explain some of the appearances exhibited by the planet Saturn; he had at first perceived two attendant stars, but some time afterwards was surprised to find that they had disappeared. Huygens, desirous to account for these changes, laboured with his brother Constantine to improve the construction of telescopes; and having at length made an instrument

of this kind, possessing greater power than any which had yet been contrived, he proceeded to observe the phases of Saturn, and to record all the different aspects of that planet. The results were of equal interest and importance to the science of astronomy. He discovered a satellite of that planet, which had hitherto escaped the notice of astronomers; and, after a long course of observation, he showed that the planet is surrounded with a solid and permanent ring, which never changes its situation. In 1660, he took a second journey into France, and the year following he visited England, where he communicated the art of polishing glasses for telescopes, and was admitted as a member of the Royal Society. The air-pump, then recently invented, he materially improved; and about the same time he also discovered the laws of the collision of elastic bodies, as did afterwards our own countrymen, Wallis and Wren, who disputed with him the honour of the discovery. After a stay of some months in England, Huygens returned to France, where, in 1663, his merit became so conspicuous, that Colbert resolved to bestow on him such a pension as might induce him to establish himself at Paris. But this resolution was not carried into effect until 1665, when letters written in the king's name were forwarded to the Hague, where he then resided, inviting him to repair to Paris, and offering him a considerable pension, with other advantages. Huygens accepted the proposal of the French minister, and, from 1666 to 1681 resided at Paris, where he was admitted as a member of the Royal Academy of Sciences. During this period he was occupied with mathematical pursuits; he wrote and published several works, which were most favourably received; and he invented and perfected some useful instruments and machines. But, by continued application, his health began to be impaired; and although he had twice had recourse to his native air, and on both occasions derived benefit from the change, the improvement was only temporary, and he at length found it necessary to quit France and return to his own country. It is not improbable that his departure was accelerated by the revocation of the edict of Nantes; for although he had received an assurance that he would be permitted to enjoy the same liberty as before, without being molested on account of his opinions, he had but little encouragement to remain in a country where his religion was proscribed, and those who professed it subjected to the most cruel persecution. He accordingly left Paris in 1681; passed the remainder of his life in his own country, occupied with his usual pursuits; and died at the Hague on the 8th of June 1693, in the sixty-seventh year of his age, whilst his *Cosmotheoros*, a treatise on the plurality of worlds, was passing through the press. The *Opera Varia* of Huygens were published in 1700, 4to, and his *Opuscula Posthuma* appeared soon afterwards, Leyden, 1703, in 4to. The former collection, which is generally bound in four volumes, contains the greater number of the pieces which he published separately, and is divided into four parts; the first comprising the pieces relating to mechanics; the second, those relating to geometry; the third, those relating to astronomy; and the fourth, miscellaneous productions, which could not be arranged under any of the preceding heads. 's Gravesande had the care of this edition, in which he inserted various additions to the different pieces extracted from the manuscripts of Huygens. The same individual also superintended the publication of his *Opera Reliqua*, which appeared at Amsterdam in 1728, in two vols. 4to, and contain, 1. his Treatises on Light and Gravity; and, 2. his *Opuscula Posthuma*, originally printed in 1703. For a masterly account of the genius and labours of Huygens, the reader may consult the Dissertations by Professors Playfair and Sir John Leslie, prefixed to this work. This illustrious man gave his whole time to science; he loved a

Huysum
Hyacin-
thus.

quiet studious life, and found sufficient enjoyment in pursuing curious and useful researches. He was modest, amiable, cheerful, and in all respects as estimable in private life as he was eminent in science. It is not a little singular, that the discovery of the real nature, or at least of the true figure, of the luminous belt or ring which encompasses the planet Saturn should have been made by the same individual who invented the pendulum clock and the micrometer. (A.)

HUYSUM, the name of several Dutch painters. The most celebrated of these was John, whose subjects were flowers, fruit, and landscapes. He was born at Amsterdam in 1682, and was a disciple of Justus van Huysum, his father. He set out in his profession with a most commendable principle, not so much to paint for the acquisition of money, as of fame; and therefore he did not aim at expedition, but at delicacy, and strove, if possible, to arrive at perfection in his art. Having studied the pictures of Mignon, and all other artists of distinction who had painted in his own style, he tried which manner would soonest lead him to imitate the beauties of each flower, fruit, or plant, and then fixed upon a manner peculiar to himself, and which seems almost inimitable. His pictures are finished with inconceivable truth; for he painted every thing after nature, and was so singularly exact as to watch even the hour of the day in which his model appeared in its greatest perfection. By some persons he was thought to paint with greater freedom than Mignon or Breughel; with more tenderness and nature than Mario da Fiori, Michel Angelo di Campidoglio, or Segers; with more mellowness than De Heem; and with greater force of colouring than Baptist. At length his reputation rose so high, that he fixed immoderate prices on his works; so that none but princes, or those possessed of princely fortunes, could pretend to become purchasers. The large sums which Van Huysum received for his works caused him to redouble his endeavours to excel; no person was admitted into his room whilst he was painting, not even his brothers; and his method of mixing the tints, and preserving the lustre of his colours, he kept an impenetrable secret. From the same principle, he would never take any disciples, excepting one lady, named Haverman; and he even grew envious of her merit. By several domestic disquiets his temper became changed, and he grew morose, fretful, and apt to withdraw himself from society. There were many who envied his fame, but he continued to work, and his reputation never diminished. It is universally agreed that he excelled all who painted fruit and flowers before him, by the superiority of his touch, the delicacy of his pencil, and an amazing skill in finishing; nor does it appear probable that any future artist will ever become his competitor. Besides his merit as a painter of flowers, he also painted landscapes with great applause. They are well composed; and although he had never seen Rome, he adorned his scenes with the noble remains of ancient magnificence preserved in that city. His pictures in this style are well coloured, and every tree is distinguished by a touch that is proper for the leafing. The grounds are well broken, and disposed with taste and judgment; the figures are designed in the manner of Lairese, highly finished, and touched with a great deal of spirit; and through the whole composition the scene represents Italy, in the trees, the clouds, and the skies. He died in 1749, at the age of sixty-seven.

HYACINTHUS, a son of Amyclas and of Diomedes (Apollodor. iii. 10, 3), or of Pierus and of Clio (i. 3, 3), beloved by Apollo and Zephyrus. He gave the preference to the former, and whilst they were amusing themselves at quoit, Zephyrus in revenge blew the quoit which Apollo had thrown, on the forehead of Hyacinthus, and he was killed by the blow. Apollo was so disconsolate

Hyades
Hyde.

at the loss of Hyacinthus that he changed his blood into a flower of the same name, and on the petals engraved the exclamation *Alas, alas*. (Paus. iii. 19, 1.)

HYADES, nymphs, daughters of Atlas and Æthra (Ovid), of Erechtheus, king of Athens (Eurip.), of Hyas and Bæotia (Hygin.) Their number and names are uncertain, but generally they are either seven or six, and they are called, Cisseis, Nysa, Erato, Eriphia, Bromie, Polyhymno; or, if they are seven, Ambrosia, Eudora, Phæsole, Coronis, Polyxo, Phæo, Thyone. At their death they were changed into stars, and placed on the head of Taurus, one of the twelve signs of the zodiac. They were supposed to preside over rain (hence the name, from *ia*, to rain), because the rising and setting of the Hyades was always attended with much rain. (Ovid. *Fast.* 5, 165; Cic. *de Nat. Deor.* 43.) The Latins called them *sucula*, swine, because they were so ignorant of the Greek language that they imagined the Greek word to be derived from *is*, a sow. (Gell. xiii. 9. Plin. ii. 39.; xviii. 26.)

HYBLA, in *Ancient Geography*, called also MEGARA, which last name it took from the Megareans, who led thither a colony. In Strabo's time Megara was extinct; but the name *Hybla* remained on account of the excellent honey which takes its name from this place. It was situated upon the east coast of Sicily, between Syracuse and the Leontines. The *Hyblæi colles*, small eminences at the springs of the Alabus, near this place, were famous for their variety of flowers, and especially thyme; the honey gathered from which was by the ancients reckoned the best in the world, excepting that of Hymettus in Attica.

HYBRIDA PLANTA, a monstrous production of two different species of plants, analogous to a mule amongst animals. The seeds of hybrid plants will not propagate.

HYBRISTICA (of *ὑβρις*, injury), in *Antiquity*, a solemn feast held amongst the Greeks, with sacrifices and other ceremonies, at which the men attended in the apparel of women, and the women in that of men, to do honour to Venus in quality either of a god or a goddess, or both. But, according to the account given by others, the *hybristica* was a feast celebrated at Argos, in which the women, being dressed like men, insulted their husbands, and treated them with all marks of superiority, in memory of the Argive dames having anciently defended their country with singular courage against Cleomenes and Demaratus. Plutarch speaks of this feast in his treatise of the great actions of women. The name, he observes, signifies infamy, and is well accommodated to the occasion, in which the women strutted about in men's clothes, whilst the men were obliged to dangle in petticoats.

HYDE, EDWARD (afterwards Earl of Clarendon), was born at Dinton, in the county of Wilts, on the 18th of February 1609. He was the third son of Henry Hyde, the descendant of a family of that name, which had resided from a remote period at Norbury, in Cheshire. Edward, after receiving his first education under his father's roof, was sent, at the age of thirteen, to Magdalen Hall, at Oxford. He was originally intended for the church; but, in consequence of the death of his last surviving elder brother, his destination was changed, whilst he was at the university, from the profession of the church to that of law, and in 1625 he was entered at the Middle Temple. A severe ague with which he was attacked that year caused a suspension of his studies, and temporary removal from the Middle Temple, to which he returned in 1626. In 1628, when riding the Norfolk summer circuit with his uncle, Sir Nicholas Hyde, chief-justice of the King's Bench, who died in 1631, he caught the small-pox; and his legal studies were again for a long time interrupted. He married, in 1629, a daughter of Sir George Ayliffe, who died of the small-pox six months afterwards. He married a second time in 1632, in which year he lost his father. His se-

Hyde. cond wife was a daughter of Sir Thomas Aylesbury, Bart. master of requests; and by her he had many children. Hyde now applied himself to the study of the law with a diligence which he had not shown before, and his success soon surpassed the expectations of his contemporaries. Meanwhile he lived little with lawyers; but he had many associates of political and literary celebrity, Lord Falkland, Selden, Chillingworth, Waller the poet, Ben Jonson, May the historian, Hales, Sheldon, Earles, and Morley. To these may be added a few men of high rank, as the Marquis of Hamilton, the Earls of Pembroke, Holland, and Manchester, and Lord Coventry. In 1635, through an accidental circumstance, he also obtained the notice of Archbishop Laud. In the course of an inquiry into the state of the customs instituted by the primate in his capacity of commissioner of the treasury, Hyde was mentioned to him as one who had been much consulted by some aggrieved merchants, and could afford the information desired. From this time Laud saw him frequently, employed him upon many occasions, and caused him to be noticed and employed by others. From 1635 till 1640 may be regarded as the most fortunate period of Hyde's life. He was successful in his profession, possessed a competent private fortune, and was happily married. In 1640 he was elected member of parliament for Wootton-Basset and for Shaftesbury, and took his seat for the former. The parliament met on the 13th of April, and was dissolved on the 5th of May. Hyde's first brief parliamentary career was characterized by activity and an honest zeal in the correction of abuses, from which not all the friendship of Laud and the favour of the court was able to divert him. In his first speech he denounced the earl marshal's court, which, in its protection of the privileges of the titled classes, had been intolerably vexatious and oppressive; and he showed himself a true and practical friend of rational freedom. During this very short session, he served in seven committees. He foresaw the evil consequences of the hasty dissolution, and endeavoured in vain to prevail on Laud to employ his influence with the king to prevent it. In the next parliament, which met in November 1640, Hyde sat for Saltash. He recommenced his proceedings against the earl marshal's court, of which he procured the suppression. He was also chairman of a committee of inquiry into the abuses of the council of York, and the court of the council of the marches; and he conducted the impeachment of three of the barons of the exchequer for illegal exactions at the bidding of the crown. But Hyde, though zealous for the redress of grievances, was opposed to the encroachments of parliamentary authority, which began to assume a formidable aspect. Strongly attached to episcopacy, he also disliked the attempts of the parliament to remodel the government of the church; and boasts that as chairman of the committee on that question, he interposed so many delays that the project was suspended. He vehemently protested against the Commons' remonstrance, his opposition to which was the occasion of his first introduction to Charles I. He had written an answer to it, which he showed in confidence to Lord Digby. Digby made it known to the king, who sent for Hyde, requested the paper, approved, and published it as the reply of the king with the advice of his council. Soon afterwards the king offered to Hyde the office of solicitor-general, which the latter declined, alleging that he could better serve his sovereign in an unofficial capacity. To this the king assented; and meanwhile committed to him, to Lord Falkland, and to Sir John Colepepper, the entire management of his affairs in the House of Commons, assuring them that he would take no step therein without their concurrence. Notwithstanding this assurance, Charles, without apprizing these chosen councillors, not long afterwards had

recourse to the ill-timed measure of attempting to seize the five members in the House of Commons. Though the consequences of this rash act were irretrievable, and the royal cause was almost hopeless, Hyde continued courageously to support it. During many months he was secretly employed in writing answers for the king to the declarations of the parliament, and had frequent interviews with him by stealth; but he was at length suspected, and narrowly escaped committal to the Tower by flying to the king at York. Though Hyde had thus become openly an adherent of the king, he long refused office. He declined the proffered post of secretary of state; and it was not till March 1643 that, on the promotion of Sir John Colepepper to the mastership of the rolls, he accepted the chancellorship of the exchequer. He was one of the commissioners at the negotiations at Uxbridge, where, as on other occasions, he fruitlessly laboured to effect peace between king and parliament, as far as was compatible with a preservation of the royal prerogative and the rights of the established church.

In 1644, after the battle of Naseby, Hyde was appointed, together with Sir John Colepepper and Lords Capel and Hopton, to form a council to attend, watch over, and direct the Prince of Wales. After hopelessly witnessing for many months a course of disastrous and ill-conducted warfare in the west, they fled with him, first to Scilly, and thence to Jersey; from which, at the entreaty of the queen, but against the opinion of Hyde and others of the council, the prince, in 1646, repaired to his mother at Paris, attended only by Sir John Colepepper, and leaving Hyde at Jersey. In this retreat Hyde remained till the spring of 1648, engaged in the composition of his history of the rebellion. He also wrote, during this period, an answer to a declaration of the parliament, in which they charged the king with all the evils which had happened, and justified the discontinuance of all further addresses to him. In May 1648, he was summoned to attend the prince, who, at the head of a fleet which had espoused the royal cause, was blockading the Thames. Hyde, after encountering sundry difficulties, and amongst others seizure by privateers off Ostend, did not meet the prince till his return to the Hague, about the end of August, from his fruitless expedition. Hyde found dissensions in the prince's little court at the Hague, especially between Prince Rupert and Lord Colepepper. The news of the death of Charles I. for a while afflicted and appalled them; but their animosities soon broke out afresh, and disturbed the councils of the new sovereign. In 1649, at the suggestion of Lord Cottington, Hyde and that nobleman were sent as ambassadors to the court of Spain for the purpose of soliciting its assistance. They were coolly received, and had the mortification of perceiving that the Spanish court was more inclined to cultivate the friendship of the commonwealth of England; and to the memorial which they presented to the king of Spain in a private audience, they obtained only a cold and ambiguous reply. The treatment they experienced from the Spanish government was meanly time-serving, and varied with the fortune of Charles's affairs. On his determining to proceed to Scotland, upon the invitation of the Scotch council and parliament, the ambassadors were treated with more regard. Upon the news of Cromwell's victory over Argyll's army, they were desired to depart. Accordingly, Hyde quitted Spain, unaccompanied by his colleague Lord Cottington, who chose to remain as a private person, though not permitted to reside at Madrid. On Hyde's return from Spain in 1651, he met at Paris the king, returned from the ill-fated expedition which terminated in his defeat at Worcester; which rash interference, and the king's negotiation with the Scotch, and acceptance of the covenant, Hyde severely censured. He found himself expo-

Hyde.

Hyde. ed to the enmity of many, especially of the queen. Sundry calumnies were circulated against him; and two petitions were prepared, one from presbyterians, the other from papists, praying his removal from Charles's councils. But Charles's confidence in Hyde was not shaken by these intrigues; and he appears to have seen their groundlessness, and properly appreciated the valuable services of so honest, able, and zealous a minister. Extreme poverty was amongst the evils which, in a greater or less degree, since Hyde's departure from Jersey, he and his family had been compelled to bear. His family resided principally at Antwerp, and he and they were almost reduced to want the most common necessities of life; yet his courage and integrity never faltered, and he would not even (as many had done) compound for his estates in England, lest thereby he should seem to acknowledge the existing government. Year after year, too, the hope of relief to the royalist party from foreign aid was waning away; and neither foreign war nor domestic conspiracy seemed to avail against the power of Cromwell. In 1658 Cromwell died, but the protectorate passed, like an inheritance, into the hands of his son; and though the hopes of the royalists were naturally excited, the prospects of restoration were still found to be dark, vague, and distant. Hyde, who was now lord chancellor, corresponded much with those whom the weakness of Richard Cromwell and the distracted state of England had rendered favourable to the royal cause, and proved instrumental in forwarding that Restoration which was at length more ostensibly effected by the powerful agency of Monk.

The period immediately following the Restoration was that of Hyde's greatest power. He was the first minister, presiding over a cabinet in which the principal offices were filled by his friends (for such were Sir Edward Nicholas, the Earl of Southampton, and the Marquis of Ormonde), and the principal measures of the government were peculiarly his. The first great measure of his administration was the act of indemnity. This was in accordance with the king's declaration from Breda, in which he promised pardon to all his subjects, save such as should be excepted by parliament, by which was intended the exclusion of those who had been instrumental to his father's death. The lord chancellor was on the side of mercy, and urged the speedy adoption of this healing measure on a reluctant and vindictive parliament. In the settlement of property under the act of indemnity some apparent injustice was unavoidably committed, by the necessity of dealing differently, not according to the merits of persons, but the nature of the property to be dealt with, and the title by which it was held. Transactions between individuals could not be reached; but grants to or purchases by individuals from the usurping state became subject to revision from defect of title; and crown and church lands were recovered from their holders, whilst the impoverished royalist who had sold his property to support the cause of the king was doomed to see the sale confirmed, and himself debarred from compensation. The royalists consequently murmured loudly. They called the statute an act of "indemnity for the king's enemies, and of oblivion for his friends;" and they hated the chancellor for the part he took in framing this act, and his steady adherence to the principles of it. The next important measure was the settlement of the revenue. It is asserted by several authorities, that the chancellor might have obtained for the king from the parliament, in the first fervour of their revived loyalty, an annual revenue of £2,000,000. But it was not his wish to render the sovereign independent of the aid of his parliament, and he therefore sought for him only £1,200,000, a sum scarcely sufficient for the exigencies of the state, unless administered with due economy. This sum the parliament readily granted. Military tenures, and the oppressive

privileges of wardship, purveyance, and pre-emption, were abolished, and the excise on liquors was granted in their stead. The restoration of the bishops to the House of Lords, the statute against tumultuous petitioning, the vesting of the supreme command of the militia solely in the crown, and the repeal of the triennial acts, were measures promoted by the chancellor for the purpose of strengthening the prerogative of the crown. In the regulation of the judicature he deserved high praise. He showed a rare impartiality and discernment in his appointments, and eminent integrity and diligence in the administration of his own office. His conduct in ecclesiastical matters was less liberal and judicious. He believed episcopacy to be the only form of church government suitable to monarchy, and was too little tolerant towards other sects. Under his administration several oppressive acts were passed; the act of uniformity, compelling clergymen, on pain of abandoning their livings, to subscribe to the forms of the church of England, and to the doctrine of passive obedience, by which two thousand were ejected; the act against conventicles, imposing fines on all present at any meeting for religious worship at which five assisted besides the family; and the five-mile act, by which dissenting teachers who had not taken the oath of passive obedience were forbidden to approach within five miles of a place where they had preached since the act of indemnity. But the sin of such oppressions lies chiefly with the parliament. In that which succeeded the convention parliament there were a great majority of high churchmen. Venners' insurrection had strengthened the prejudices against sectarians; and it is by no means certain that Clarendon could have stemmed the torrent of intolerance, even if he had wished or attempted to do so.

In 1660, on the 3d of September, his daughter Anne was secretly married to the Duke of York; an union which, after much opposition from the mother and sister of the duke, and the calumnies of profligate courtiers, was acknowledged about the end of the year. The discovery was received by the chancellor with violent demonstrations of indignation and grief. He seems to have been solicitous to repel the imputation of having secretly promoted an alliance so flattering to his ambition, and to have dreaded the effects of the jealousy it might excite. He had in the following year a share in negotiating a marriage for the king with Catherine of Portugal; a marriage which, when it proved unfruitful, was groundlessly supposed to have been promoted by Clarendon under that expectation, and with a view that his son-in-law or his descendants might inherit the throne. Such suppositions would have been far fetched, even if an incapacity in the princess to bear children had really existed; and it must fall to the ground when the contrary is known. Difference of religion was the only obvious objection to this alliance; but there was no Protestant princess to whom Charles would ally himself; and amongst Catholics the princess of Portugal was perhaps least objectionable, and conferred the advantages of a dowry of £500,000, Tangiers, Bombay, and free trade with Portugal and its colonies. The profligacy of Charles, and the malign influence of Lady Castlemaine, afterwards Duchess of Cleveland, which Clarendon vainly endeavoured to resist, were the main causes of the unhappiness of this marriage.

Hyde showed no avidity for emoluments or distinctions. After the Restoration, when Monk was created a duke, and Montague an earl, Hyde declined a proffered peerage, resting his refusal on unwillingness to excite disaffection amongst the new supporters of monarchy by an apparent eagerness on the part of the king to load with honours his old adherents. When the marriage of his daughter with the Duke of York became known, this objection ceased; a public mark of the king's unaltered regard be-

Hyde. came desirable, and Hyde accepted the barony of Hindon. A further elevation took place in 1661, at the coronation, on the request of the Duke of York; and the chancellor was created Earl of Clarendon, and took his seat as such on the 11th of May. At the time when he was made a baron he accepted a present of £20,000 from the king; but he had declined at an earlier period the more valuable grant of ten thousand acres of crown land, which Charles was willing to bestow.

One of the measures of his administration which has exposed him to most reproach, was the sale of Dunkirk in 1662. Yet it cannot be shown that the motive was corrupt, or the measure indefensible. Money was wanted; large arrears had been due to the army; and large sums had been necessarily expended in military and naval stores. The revenue settled by the parliament was insufficient in amount, and with difficulty collected; and subsidies were granted by the parliament in 1661 as an additional aid. The wants of the state were still urgent. Dunkirk was a source of expense to the yearly amount of £120,000. France was willing to purchase; and after much negotiation between Clarendon and D'Estrades, Dunkirk was sold to France for 5,000,000 livres. A more truly censurable act of Clarendon's administration was sanctioning the acceptance of money for Charles from Louis XIV. though he had the honesty to refuse it for himself, and laying the foundation of that secret correspondence which at length rendered the king of England almost the pensioned servant of France. The sale of Dunkirk tended to weaken the popularity of Clarendon with the nation. He soon began to lose the favour of the king, by his opposition, in July 1663, to a measure Charles had much at heart, namely, a bill to invest the king with a discretionary power of dispensing, for a fine, penal laws against all sects, by which Charles hoped to favour the Catholics, though this purpose was necessarily cloaked under a promise of toleration, including all Protestant dissenters. Clarendon, who knew and disapproved of the motive, vehemently opposed this bill, and caused it to be laid aside; and Charles from that time began to entertain a dislike of his minister, which the enemies of Clarendon sedulously fostered. The Duke of Buckingham and other chosen associates of the king tried to undermine the influence of Clarendon by mimicry and taunts, representing him as a churlish pedagogue, and inciting the king to emancipate himself from restraint. His influence as a minister was also lessened by the substitution of Bennet for his firm friend Sir Edward Nicholas, and by the reviving power of Coventry and Ashley. He also paid the penalty of power, in bearing the load of whatever calamities befel the nation. Even the plague, and the fire of London, and the disastrous issue of the Dutch war (a war to which the public was favourable, and he was adverse), concurred to weaken his popularity. The defenceless state of the Thames, which enabled the Dutch to invade it successfully, and the conclusion of a peace which the people disliked, were imputed to the chancellor. Anxious to pursue a middle course, and careless of the public favour, he had gained the friendship of no party alike able and willing to support him. The Protestant dissenters disliked him as the promoter of the measures against non-conformists; the Catholics as having frustrated the king's endeavour to grant them indulgence; the Royalists as the supporter of the act of indemnity and oblivion; the populace because he had built a large house, which, it was already rumoured, was the ostentatious result of secret bribes from France or Holland. The profligate and ambitious court disliked him as a reprover of their license, and an obstacle to their advancement; and Charles, who, aided by the high-church party, might have supported him against these assailants, had recently entertained a fresh ground of dislike. He knew that Cla-

VOL. XI.

Hyde. rendon opposed his infamous plan of obtaining a divorce; and he believed him to have promoted the marriage of Miss Stewart, whom, after obtaining such divorce, Charles had intended to espouse. The discontented nation clamoured for a victim; and the ungrateful king was glad to sacrifice to popular vengeance the minister whose stubborn honesty was opposed to the gratification of his will. He sent a message to Clarendon, then in affliction from the recent death of his wife, advising him to resign, with a view of saving himself from impeachment. Clarendon refused to take so humiliating a step; and Charles deprived him of the great seal on the 13th of August 1667. Clarendon, whom the impeachment preferred by Lord Bristol four years before had left unshaken, was now again exposed to this attack under circumstances which rendered it more powerful against him. Urged by the Dukes of Buckingham and Albemarle, the Commons drew up, on the 6th of November, an impeachment, consisting of seventeen articles, which, after several days' debate, was on the 12th carried up to the Lords. He was accused of designing to govern by a standing army, and advising the king to discontinue parliaments; of saying that the king was in his heart a Papist; of receiving money for illegal patents; of imprisoning in remote garrisons; of unjust sale of offices; of corruptly procuring the customs to be farmed at low rates, pretended debts to be paid by the king, and the company of vintners to obtain undue advantages; of procuring grants to be made to himself and his relations; of introducing arbitrary government in the colonies; of frustrating a proposal for the preservation of Nevis and St Christopher's; of advising and effecting the sale of Dunkirk; of unduly causing the king's letters-patent to Dr Croucher to be altered; of arbitrary conduct in the council; of having caused *quo warrantos* to be issued against corporations, with the intent of extorting money; of having corruptly procured the bill of settlement for Ireland; of having deceived the king in his administration of foreign affairs, and betrayed his councils to the enemy; and of having counselled the division of the fleet in June 1666. To these flimsy charges Lord Clarendon replied by the mouth of his son, that if any one was proved, he would submit to the rest. His accusers were ashamed to make any one of them the specific ground of an impeachment; and accordingly he was impeached of high treason in general terms, and his imprisonment demanded, until the Commons, "in convenient time," shall exhibit "articles against him." The Lords refused to imprison him on this general accusation. Much controversy ensued between the two houses, during which, in compliance with the entreaties of his friends, and the intimated wishes of the king, Clarendon closed the dispute by withdrawing himself from the kingdom on the 29th of November 1667, and retiring to France. He left on his departure a vindication of his conduct, addressed to the House of Lords, which address was communicated to the Commons, by whom it was voted that it was scandalous and seditious, and should be burned by the hangman. The Commons then attempted to obtain his attainder, but were opposed by the Lords; and the two houses finally concurred in an act of banishment and incapacity, unless he appeared and took his trial before the 1st of February, which act was passed on the 18th of December 1667. Fresh persecutions awaited Clarendon. The court of France, in order to gain the favour of England, wished to expel him from their dominions; and it was not till their hopes of alliance were dispelled by the triple league, that they showed kindness to the distinguished exile, and Clarendon received a special permission to reside in any part of France. He abode principally at Montpellier, where, resuming his literary labours, he completed his celebrated *History*, and the *Memoir of his own Life*. From thence he re-

5 E

Hyde. paired to Rouen, where, in the year 1674, he addressed to Charles II. a fruitless prayer for permission to spend the short remainder of his life in England. A few months afterwards he died at Rouen, on the 9th of December 1674, in the sixty-fifth year of his age.

The character of Lord Clarendon has been much exposed to undeserved extremes of praise and of censure. He has been made the idol of the high-church party, and bitterly assailed by their opponents. As a minister he appears to have been incorrupt, indefatigable, zealous for the public service, and anxious to hold an even balance between the liberties of the subject and the privileges of the crown, and to secure to the restored king only the constitutional powers of limited monarchy. His chief faults were harshness towards the non-conformists, and acquiescence in the king's clandestine acceptance of pecuniary aid from France. His merits cannot be fairly estimated, without considering the difficulties of his position, the profligacy and corruption of the times in which he lived, to which he boldly and honourably opposed himself, and comparing his administration with the disgraceful epoch by which it was succeeded. He was upright and uncompromising, and neglectful of the arts of popularity, both towards men of high and of humble station. His abilities were very great, but consisted perhaps rather in quickness than in depth and comprehensiveness of mind. He was ready and powerful as an orator, and prompt and able in the despatch of business, of which, in spite of frequent illness, he bore by far the greatest share during the period of his administration. In private life he was unimpeachable. As a writer he will ever occupy a high place. His history, as characterized by a distinguished modern historian, is "a monument of powerful ability and impressive eloquence." Its remarkable beauties are its masterly delineation of celebrated characters, the occasional eloquence of its descriptive passages, and the frequent interspersions of luminous reflections. Its chief faults are diffuseness of style, and the want of accuracy and arrangement. Its fidelity as a history cannot be upheld; a defect attributable partly to the circumstance of his having trusted much to recollection in the absence of requisite materials, partly to that desire to render it serviceable to the cause of the royalists, with which he professed to have commenced it.

His principal works are, his *History of the Rebellion*; A short *View of the State of Ireland*; and *The Life of Edward Earl of Clarendon*, in which is included a Continuation of his *History of the Grand Rebellion*. Of these three works, a complete edition, containing the passages suppressed by former editors, was published for the first time at Oxford in 1826. Brief *View and Survey of the Dangerous and Pernicious Errors to Church and State in Mr Hobbes' Book entitled the Leviathan*, Oxford, 1676; A *Collection of Tracts*, fol. London, 1727, containing, A *Vindication of Himself*; *Reflections on several Christian Duties, Divine and Moral, by way of Essays*; *Contemplations and Reflections upon the Psalms of David*; A *Dialogue of the Want of Respect due to Age*; and A *Dialogue concerning Education*.

(See *Life of Clarendon*, by himself, and his *History of the Rebellion*; *Clarendon's State Papers*; Wood's *Athenæ Oxonienses*; Whitelocke's *Memorials*; Burnet's *History of his Own Times*; *Memoirs of James II.*; *Pepys's Diary*; *Evelyn's Diary*; *Parliamentary History*; and *State Trials*.) (x. y.)

HYDE, Thomas, professor of Arabic at Oxford, and one of the most learned writers of the seventeenth century, was born at Billingsley, near Bridgenorth, Shropshire, in 1636. He studied first at Cambridge, and afterwards at Oxford. Before he was eighteen years of age, he was sent from Cambridge to London to assist Mr Brian Wal-

ton in the great work of the Polyglott Bible; and about the same period he undertook to transcribe the Pentateuch out of the Hebrew characters, in which it was first printed at Constantinople, into the proper Persian characters. After he had happily succeeded in this, he assisted in correcting several parts of Mr Walton's work, for which he was perfectly qualified. "Nec prætereundus est D. Thomas Hyde," says the editor, "summæ spei juvenis, qui in linguis orientalibus supra ætatem magnos progressus fecit, quorum specimina dedit tum in Arabibus, Syriacis, Persicis corrigendo, tum in Pentateucho Persico characteribus Persicis describendo, quia antea solis Hebraicis extitit, ejusque versionem Latinam concinnando." He was made archdeacon of Gloucester, canon of Christ-church, head keeper of the Bodleian Library, and professor of Hebrew and Arabic in the university of Oxford. He was interpreter and secretary of the oriental languages during the reigns of Charles II. James II. and William III.; and he was perfectly qualified to fill this post, as he could converse in all the languages which he understood. There never was an Englishman in his situation of life who made so great progress; but his mind was so engrossed by his beloved studies, that he is said to have been but ill qualified to appear to any advantage in common conversation. This distinguished orientalist died on the 18th of February 1702. Of all his writings, the very catalogue of which is a curiosity, the most celebrated is his *Religio Veterum Persarum*, a work of profound and various erudition, and abounding with many new lights and ingenious conjectures concerning the theology, history, and learning of the eastern nations. Amongst his other works may be mentioned, 1. A Latin translation of Ulug Beig's observations on the longitude and latitude of the fixed stars; and, 2. A Catalogue of the printed books in the Bodleian Library. Dr Gregory Sharpe, master of the Temple, collected and republished some of Dr Hyde's pieces formerly printed, under the title of *Syntagma Dissertationum et Opuscula*, in 2 vols. 4to, 1767; to which is prefixed, a life of the author, containing a very judicious estimate of his labours and acquisitions. At the time of his death, Dr Hyde had planned, and partly prepared for the press, no less than thirty-one different works, some of greater and other of less importance, a list of which will be found in Chalmers's *Biographical Dictionary*, article HYDE.

HYDERABAD, an extensive province of Hindustan, in the Deccan, which is situated principally between the 16th and 19th degrees of north latitude. The name is now applied generally to all the territories of the nizam, so that it is exceedingly difficult to ascertain its exact limits. This territory composed a considerable portion of the ancient Selingana. The country is hilly, but not mountainous, being for the most part an elevated table-land, in consequence of which the climate is colder than might be expected from the latitude. During three months of the year the thermometer at the city of Hyderabad, and in the country to the north, is often as low as 45°, 40°, and even 35° of Fahrenheit. The country is fertile, and, under proper management, would yield abundantly. But the whole territory is principally rented to powerful zemindars, or is granted in jaghires to the officers of government. This distribution of the landed property, which, with the exception of some portions set aside for charitable purposes, and the estates of the nizam and the different branches of his family, is in the hands of a few individuals, is supposed to be injurious to agriculture, and of course to the interests of the revenue. The cultivators are wretchedly poor, and are much oppressed by their superiors the holders, who are subject to little or no restraint from their nominal sovereign. Where they are properly cultivated, the fields yield excellent crops of wheat, which is transported by the inland carriers to the sea-coast, whence

Hyderabad.

Hyder-
bad. salt is brought in return. The districts acquired by the nizam are particularly rich and fertile. But as agriculture is discouraged by the oppression of the cultivators, commerce is obstructed by heavy and injudicious internal taxes. In 1801 the custom-duties on importation amounted to 15 per cent., which formed the principal revenue of the state; and when the British remonstrated against the impolicy of these internal duties, the nizam evinced the most decided aversion to reduce them, and still more to abolish them, which was the counsel of the British government. It was at length agreed that the tax should be reduced to two and a half per cent. But even the levying of this duty was attended with such oppressions and vexation, that it greatly impeded commerce. At present, the principal trade carried on between the nizam's dominions and those under the British government, consists in the exportation of cotton to Berar and to the Northern Circars, and also to the markets at Vellore, Arnee, and the vicinity. They bring back salt and salted fish, cloths manufactured in the Northern Circars, Arnee muslins, and European manufactures; the latter principally for the supply of the British forces subsidised by the nizam, and for clothing his army. The chief towns of this kingdom are Hyderabad, Golcondah, Warangole, Aurungabad, Beder, and Ellichpore. The majority of the people are Hindus; but having been long the seat of a Mahomedan government, a considerable portion of the inhabitants are of that religion.

This country was formerly subject to the rajahs of Telingana and Bijanagur; but being afterwards conquered by the Mahomedans, was formed into a separate kingdom in the year 1512, under the name of Golcondah, by Mahommed Kooly, originally a Turkish adventurer. In 1687, it was brought under the dominion of Aurungzebe, and was converted into one of the provinces of the Mogul empire, and, with the other five southern provinces, was formed into a viceroyalty, under an officer appointed by the court of Delhi, called the soobahdar of the Deccan. In 1719, a Mogul officer, Cheen Khilij Khan, being appointed to this government, with the title of Nizam al Moolk, or superintendent of the kingdom, collected a large army, and got possession of all the strongholds of the Deccan; and setting up for independence, he overawed the emperor Mahommed Shah and his ministers. After the invasion of Nadir Shah in 1739, he left to the Mogul nothing but the name of sovereign; and having made Aurungabad his capital, he died at Boorhanpore in the year 1748, aged 104 years. He was succeeded by his second son, who was assassinated in 1750, and succeeded by his nephew Muzuffer Jung, who was assassinated the following year, and succeeded by his cousin Salabut Jung. He had been confined for ten years by his brother Nizam Ali, who for nearly twenty years was engaged in wars with Hyder Ali, the British, and the Mahrattas, during which his territories were greatly contracted. On the 12th of October 1800, he concluded a treaty offensive and defensive, by which he became a dependant and ally of the British. He agreed to receive into his territories a British force of 8000 infantry and 1000 cavalry; to relinquish to the British the management of all his foreign relations; and, for the regular payment of the troops stationed in his country, to cede certain portions of territory to the British. By a commercial treaty concluded in 1802 with the British, it was agreed, in lieu of all local duties, that a duty of five per cent. should be levied on all articles respectively imported into the territories of each. In 1804, after the conclusion of the war with Scindia and the rajah of Nagpoor, the nizam acquired a large accession of territory. At present the nizam's dominions comprehend the greater part of Berar, the whole of Hyderabad, Nandere, and Beeder, and part of Aurungabad and Bejapoor.

Towards the Nagpoor territories their limits are marked by the course of the Wurda river, and on the one side of the British by the Krishna and Toombuddra. This territory may be estimated in length at 420 by 220 miles, and contains 8,000,000 of inhabitants.

HYDERABAD, the capital of the above-mentioned province of Hyderabad, and of the nizam's dominions. It is situated on the south side of the Musa river, which runs rapidly during the rains, but in the dry season has scarcely two feet of water. It is said to have been founded about the year 1586 by Sultan Mahommed Kootub Shah, who, thinking the air of Golcondah did not agree with his constitution, gave orders for building a new city, which continued to be the residence of the Kootub Shah dynasty till the year 1687, when it was taken by Aurungzebe. The late Nizam Ali was the first of the nizams who made it his residence, and he spent considerable sums in improving it. It is now a large and populous place, about seven miles in circumference, and is surrounded by a stone wall, with towers at the angles and gates, which, though incapable of defence against artillery, is a good protection against the incursions of cavalry. It contains two palaces and some elegant mosques, this having long been the seat of Mahomedanism in the Deccan; and between it and Golcondah there are some handsome tombs. This city possesses large magazines, in which are deposited the presents received at various times from the different native and European powers, consisting of bales of woollen, cases of glass, glass-ware, China-ware, clocks, watches, &c. of European manufacture. These presents have accumulated during a course of seventy or eighty years, having been received by the father and grandfather of the present nizam as far back as the time of Dupleix and Bussy. Since the late Nizam Ali transferred his residence to Hyderabad, it has experienced no disturbance; and being the residence of the court, has rapidly increased in wealth and population. At present it is estimated to contain 120,000 inhabitants, including the suburbs. The travelling distance from Calcutta by the Northern Circars is 902 miles, by Nagpoor 1043 miles, from Madras 352, from Bombay 480, from Delhi 923, from Poonah 387, from Seringapatam 406. Long. 78. 42. E. Lat. 17. 15. N.

HYDERABAD, a city of Hindustan, in the province of Sinde, of which it is the capital. The fortress of Hyderabad, which is appropriated solely to the residence of the princes and their families, is situated on a rock the foot of which is washed by a branch of the river Indus, here named the Fulalee. It is of an irregular pentagonal figure, suited to the natural form of the rock, and is defended by round towers, and a high brick wall perforated with loop-holes. The situation is remarkably strong; the sides of the hill being in many places so steep as to render the ascent to the fortress difficult, even though a breach were made in the walls. The weakest point is towards the south-east, opposite a break in the rock from the Fulalee. A dry ditch twelve feet broad protects the northern side. The position is good, and the fortifications adequate to resist any attack of native tooops, though it would not stand a siege of three days against Europeans. There is a good bazar and several handsome mosques within the fort; and although little encouragement is given to industry, the artisans are numerous and skilful. The Ameers, as mentioned by Dr Burnes, who went on a mission to Hyderabad in 1828, pride themselves greatly in the brilliant collection which they possess of jewels and armour. A great part of their treasure consists in rubies, diamonds, pearls, and emeralds, with which their daggers, swords, and matchlocks are adorned, and many of which they wear as rings and clasps on different parts of their dresses. The arts connected with this pursuit are encouraged by

Hyder-
bunge
||
Hydra.

them. One or two Persian goldsmiths are engaged at court, where they work in enamel, and contrive expedients to display the jewellery of their masters. They have brought to great perfection the art of inlaying letters of gold on steel. They acknowledge the superiority of the English in the manufacture of gun-locks; and the dress of their princes and nobles consists partly of English cloths.¹ Hyderabad is situated 130 miles from the sea, on the eastern side of the main stream of the Indus, with which it is connected by the Fulalee at the distance of three miles. The country around Hyderabad rises into hills, although it is level till within a few miles of that city. The Indus is a perpetual source of fertility, affording an inexhaustible supply of water for the irrigation of the fields. The flat country of Sind is intersected by branches from the main stream, and by canals; and the transition from the parched deserts of Cutch to such a scene of fertility is described by Dr Burnes as affording a very striking contrast. The Fulalee in the month of August is from two and a half to three fathoms deep at Hyderabad, and is covered with boats laden with heavy goods. The population is 20,000. Long. 68. 41. E. Lat. 25. 22. N.

HYDERBUNGE, a populous village of Hindustan, in the province of Lahore, dependent on Attack, and situated at a short distance from the Indus. Long. 71. 25. E. Lat. 33. 20. N.

HYDERGUR, a town of Hindustan, in the nabob of Oude's territories, thirty-two miles south-east from Lucknow. Long. 81. 23. E. Lat. 26. 37. N.

HYDERSHY, a town of Hindustan, belonging to the nizam, in the province of Hyderabad, sixty miles east from the city of Hyderabad. Long. 79. 35. E. Lat. 17. 24. N.

HYDRA, in fabulous history, a serpent in the marsh of Lerna, in Peloponnesus, represented by the poets with many heads, one of which being cut off, another immediately succeeded in its place, unless the wound was instantly cauterized. Hercules attacked this monster; and having caused Iolaus to hew down wood for flaming brands,

as he cut off the heads he applied the brands to the wounds, by which means he destroyed the hydra. This hydra with many heads is said to have been only a multitude of serpents, which infested the marshes of Lerna near Mycene, and which seemed to multiply as fast as they were destroyed. Hercules, with the assistance of his companions, cleared the country of these reptiles, by burning the reeds in which they lodged.

HYDRA, in *Astronomy*, a southern constellation, consisting of a number of stars, imagined to represent a water serpent.

HYDRAGOGUES, amongst physicians, remedies which evacuate a large quantity of water in dropsies. The word is formed from *ὕδωρ*, *water*, and *ἀγῆν*, *to draw or lead*; but the application of the term proceeds upon a mistaken supposition that every purgative had some particular humour which it would evacuate, and which could not be evacuated by any other. It is now, however, discovered that all strong purgatives will themselves prove *hydragogues*, if administered in large quantity, or to persons of weak constitutions. The principal medicines recommended as hydragogues are, the juice of elder, the root of the iris, soldanella, mechoacan, jalap, &c.

HYDRARGYRUM, a name given to mercury or quick-silver. The word is formed from *ὕδωρ*, *aqua*, *water*, and *ἀργυρος*, *argentum*, *silver*, *water of silver*, on account of its resembling liquid or melted silver.

HYDRAULICS, the science of the motion of fluids, and the construction of all kinds of machines relating thereto. See HYDRODYNAMICS.

HYDRENTEROCELE, in *Surgery*, a species of hernia, in which the intestines descend into the scrotum, together with a quantity of water.

HYDROCEPHALUS, a preternatural distension of the head by a stagnation and extravasation of the lymph, which, when collected in the inside of the cranium, is termed *internal*, as that collected on the outside is termed *external*. See MEDICINE, *Index*.

Hydra-
gogues
||
Hydroce-
phalus.

¹ See *Visit to the Court of Sind*, by J. Burnes, p. 92.

Fig. 1.
CHIMERICAL FIGURES.



HERALDRY.

Fig. 2.
CROWNS.

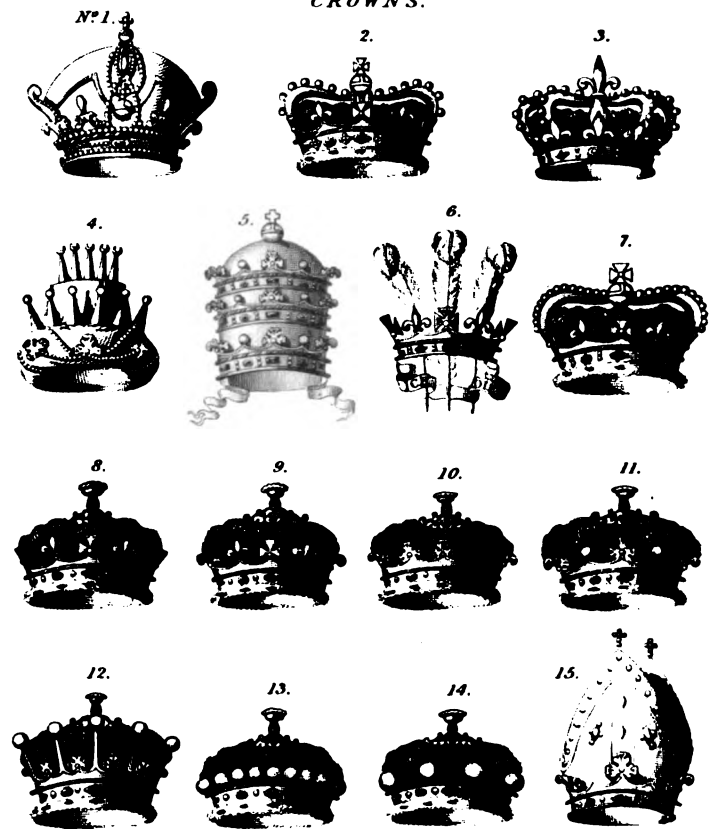
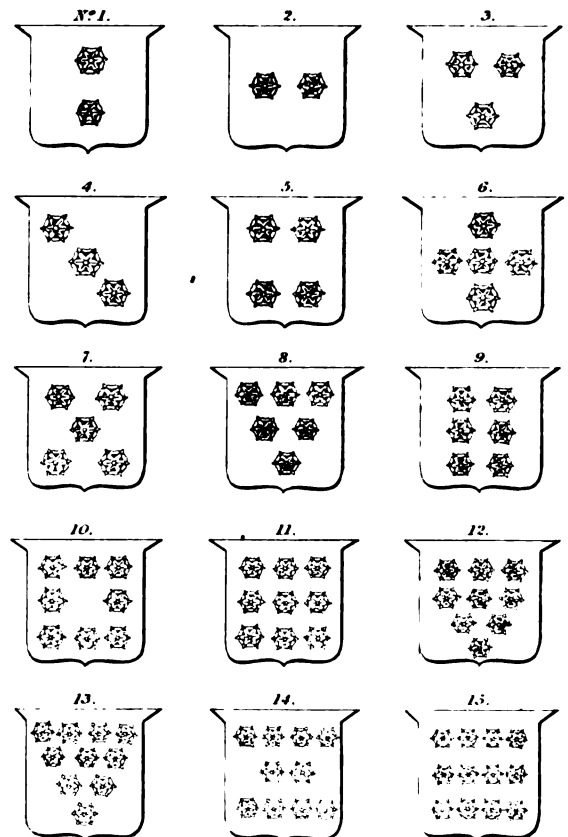


Fig. 3.
ORNAMENTS.



Fig. 4.
DISPOSITIONS.



FLAGS.



BRITISH STANDARD.



UNION.



AMERICA.

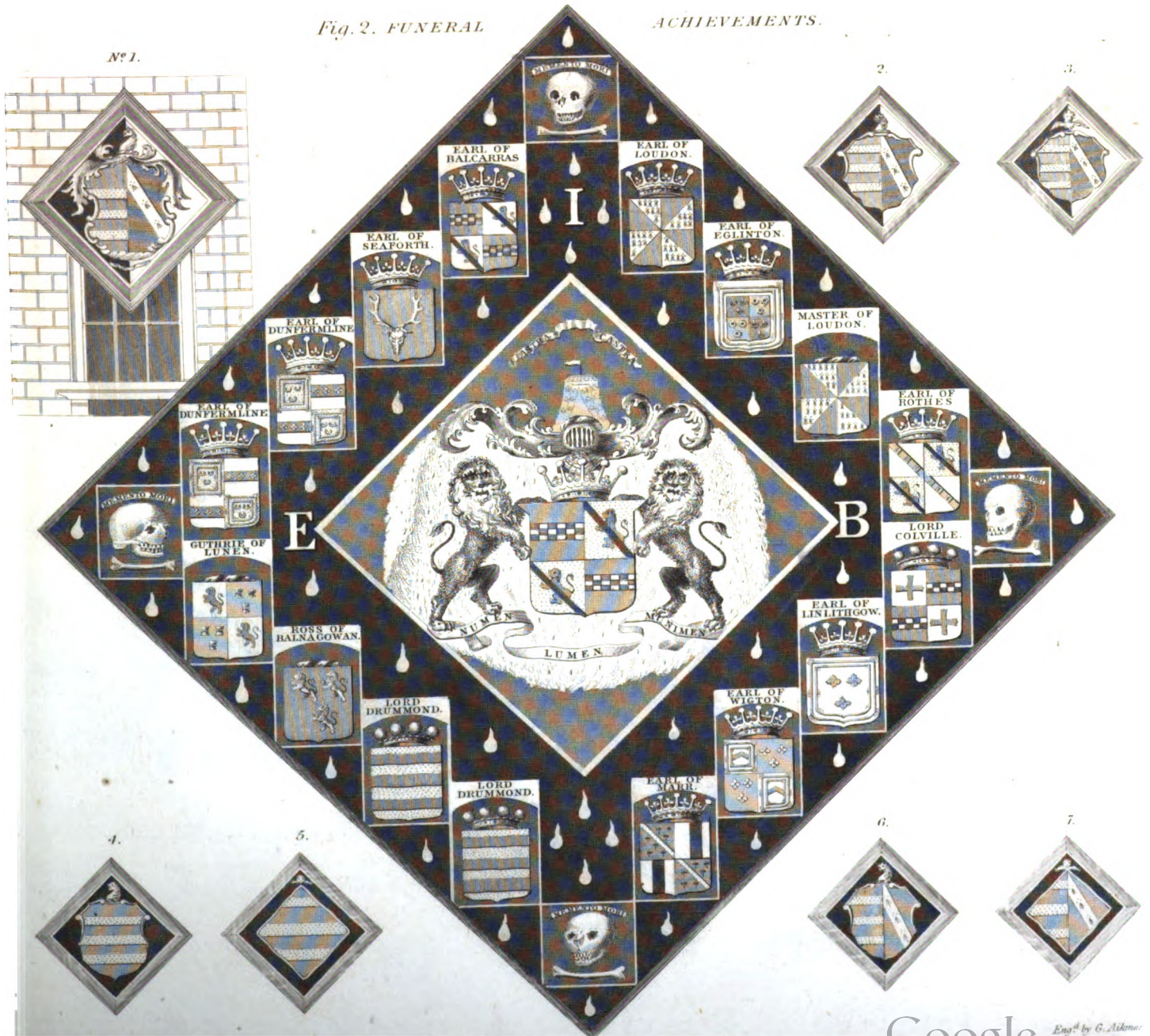


ROYAL ARMS OF BRITAIN.
Settled Nov. 1800.

Fig. 1. ARMS MARSHALLED.



Fig. 2. FUNERAL ACHIEVEMENTS.



11

LIFE
and

ETE
ONE

DM
ETC


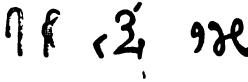




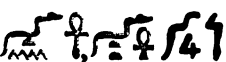

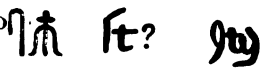

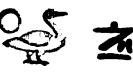


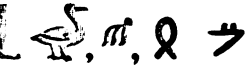












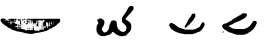
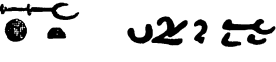




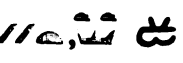
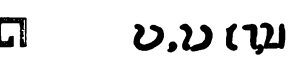










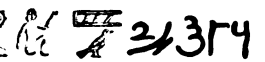



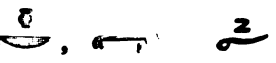



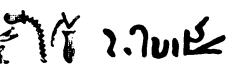
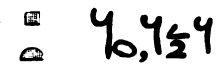


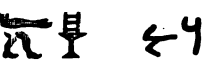

Jo
SA

PO
XC

S
T

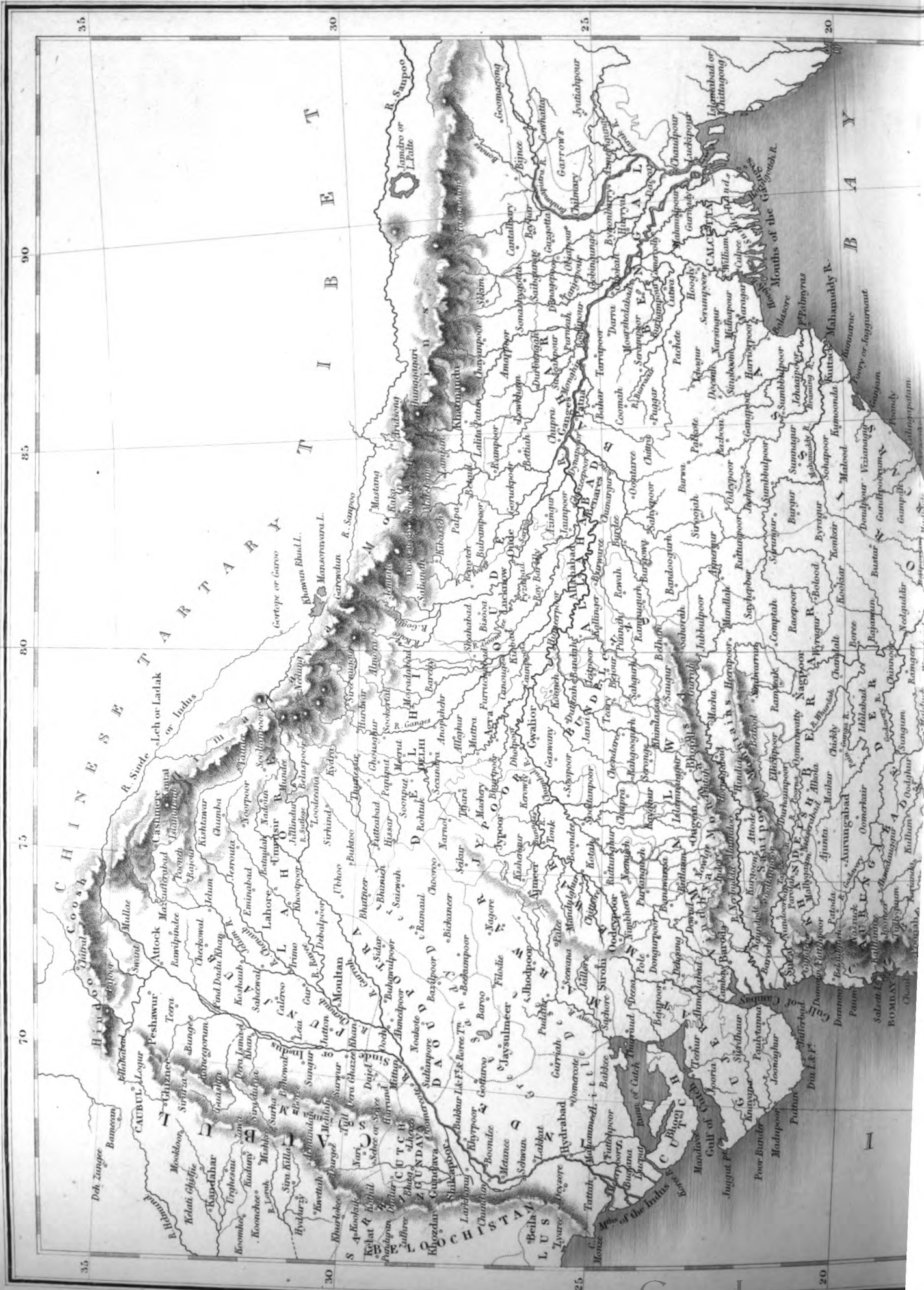
1
7

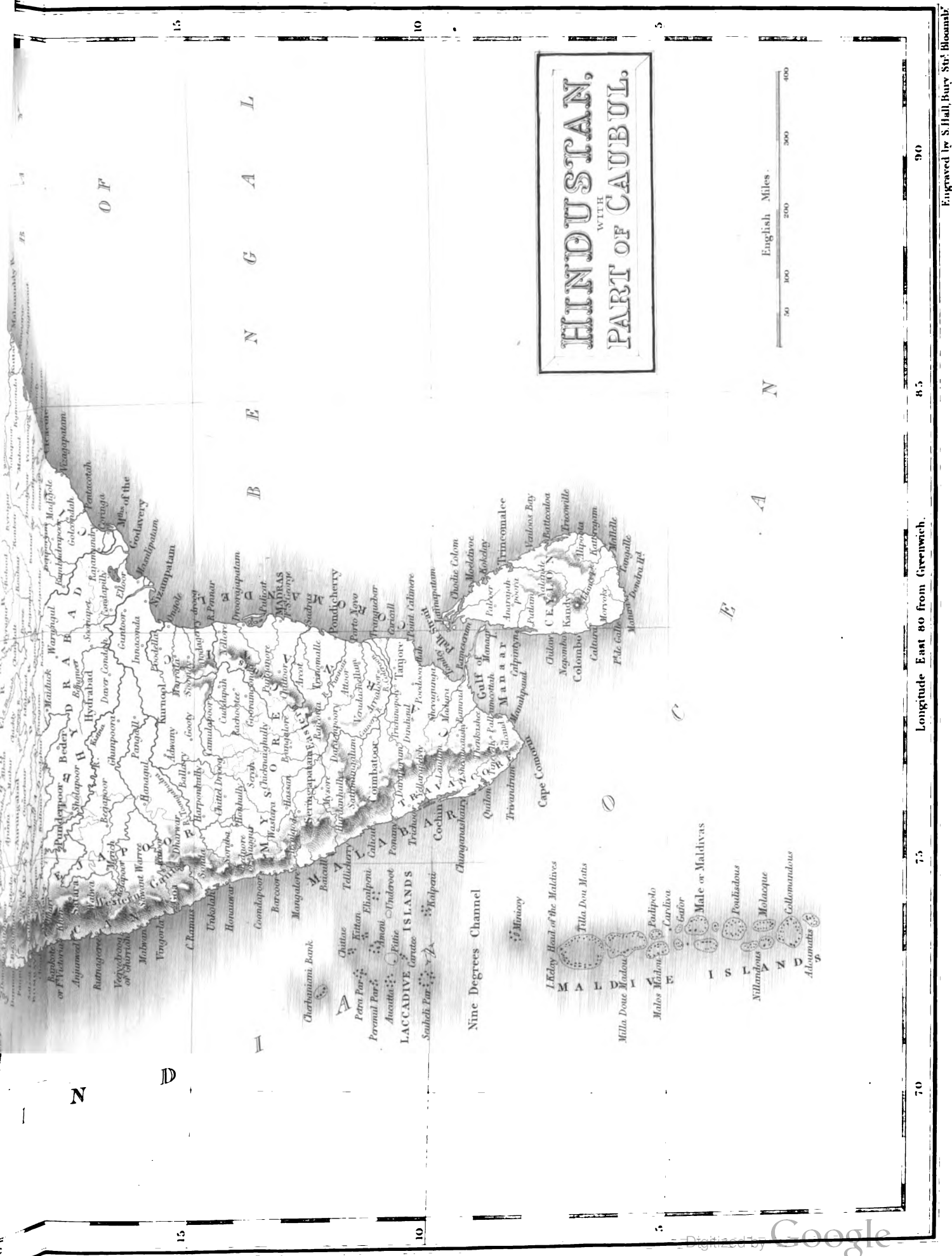
ATTRIBUTES AND ACTIONS.

- | | | | | | |
|-------------------------------|--|-----------------------------|---|-----------------------------|---|
| 1. LIFE
ΩΝΩ. ΑΩ |  9.64 | 19. WORSHIP
ΩΑΩΩΕ |  | 38. ASSEMBLY
ΩΑΙ |  |
| 2. ETERNITY
ΕΝΕΩ |  | 20. FATHER
ΙΩΤ |  | 39. SACRED
ΩΥΑΩ |  |
| 3. IMMORTAL
ΕΤΩΩ ΕΝΕΩ |  | 21. MOTHER
ΑΩΥ |  | 40. CONSECRATED
ΩΟΥΩΤ? |  |
| 4. JOY
ΩΑΟΥ? ΡΑΩΙ? |  | 22. SON
ΩΗΡΙ |  | 41. GIVE
↑ |  |
| 5. POWER
ΩΩΑ |  | 23. ATTENDANT
ΩΩΚ? ΩΩΗΡ? |  | 42. OFFER
ΕΝ, ΙΝΙ |  |
| 6. STABILITY
ΤΑΩΡΩ |  | 24. DAUGHTER
ΩΕΡΙ |  | 43. DEDICATE
ΤΑΩ? |  |
| 7. ESTABLISHED
ΤΑΩΡΙΩΤ |  | 25. SONS
ΝΙΩΗΡΙ |  | 44. LAWFUL
ΩΑΗΙ |  |
| 8. STRENGTH
ΑΑΩΩ |  | 26. CHILD
ΑΛΩΥ |  | 45. GOOD
ΝΑΝΕ |  |
| 9. MIGHTY
ΩΩΡ |  | 27. DIRECTOR
ΠΕΩΩΥΤΕΝ? |  | 46. BESTOWING
ΕΤΩΩΩΩΩ |  |
| 10. VICTORY
ΩΩΩ |  | 28. STEERSMAN
ΠΕΩΩΩ |  | 47. MUNIFICENT
ΠΕΩΩΩΩ |  |
| 11. FORTUNE
ΩΩΩ |  | 29. ROWER
ΠΕΩΩΩΩ? |  | 48. GREAT
ΝΙΩΤ, ΝΑΩ |  |
| 12. SPLENDOUR
ΩΩΥ, ΩΩΩΙΝΙ |  | 30. KING
ΩΥΩ |  | 49. OTHERS
ΚΕΩΩΩΩΩ |  |
| 13. BEARING
ΩΑΙ |  | 31. CONDITION
ΑΕΤ... |  | 50. CALLED
ΕΤΩΩ |  |
| 14. ILLUSTRIOUS
ΦΕΡΙΩΩΥ |  | 32. KINGDOM
ΑΕΤΩΩΩ |  | 51. DECLARATION
ΩΩΩ, ΩΩΩ |  |
| 15. HONOUR
ΤΑΙΩ |  | 33. LIBATION
ΩΤΕΝ ΕΩΩ |  | 52. MANIFEST
ΕΤΩΩΩ |  |
| 16. RESPECTABLE
Α? ΑΑΠΩΑ? |  | 34. CEREMONY
ΩΑΗΑ? |  | 53. NAME
ΠΑΝ |  |
| 17. VENERABLE
ΝΙΩΤ? ΝΑΙΑΤ? |  | 35. PRIEST
ΩΥΗΩ, ΩΩΤ |  | 54. ENLIGHTENING
ΠΕΩΩΩΩΩ |  |
| 18. RITE
ΠΕΤΩΩ |  | 36. PRIESTHOOD
ΑΕΤΩΩΩ |  | 55. LOVING
ΑΑΩ, ΑΩΗΡ |  |
| | | 37. SACERDOTAL
ΝΤΕ ΝΙΩΩ |  | 56. PRESERVER
ΕΩΩΩΩ |  |
| 57. SET UP
ΤΑΩΩ ΕΡΑΤ |  | 58. PREPARE
ΩΕΩΤΕ |  | | |

PHONETIC ALPHABET.

	A & other vowels.	B. OY.	Δ. T. Θ.	ε.	Υ. YOY. OAY	Γ. K.	M.	N.	Σ.	Π. Φ.	Λ. P.	Ψ	Ξ.
Certain.													
Probable.													
Doubtful.													





HINDUSTAN,
WITH
PART OF CAUBUL.

English Miles.

N

Longitude East 80 from Greenwich.

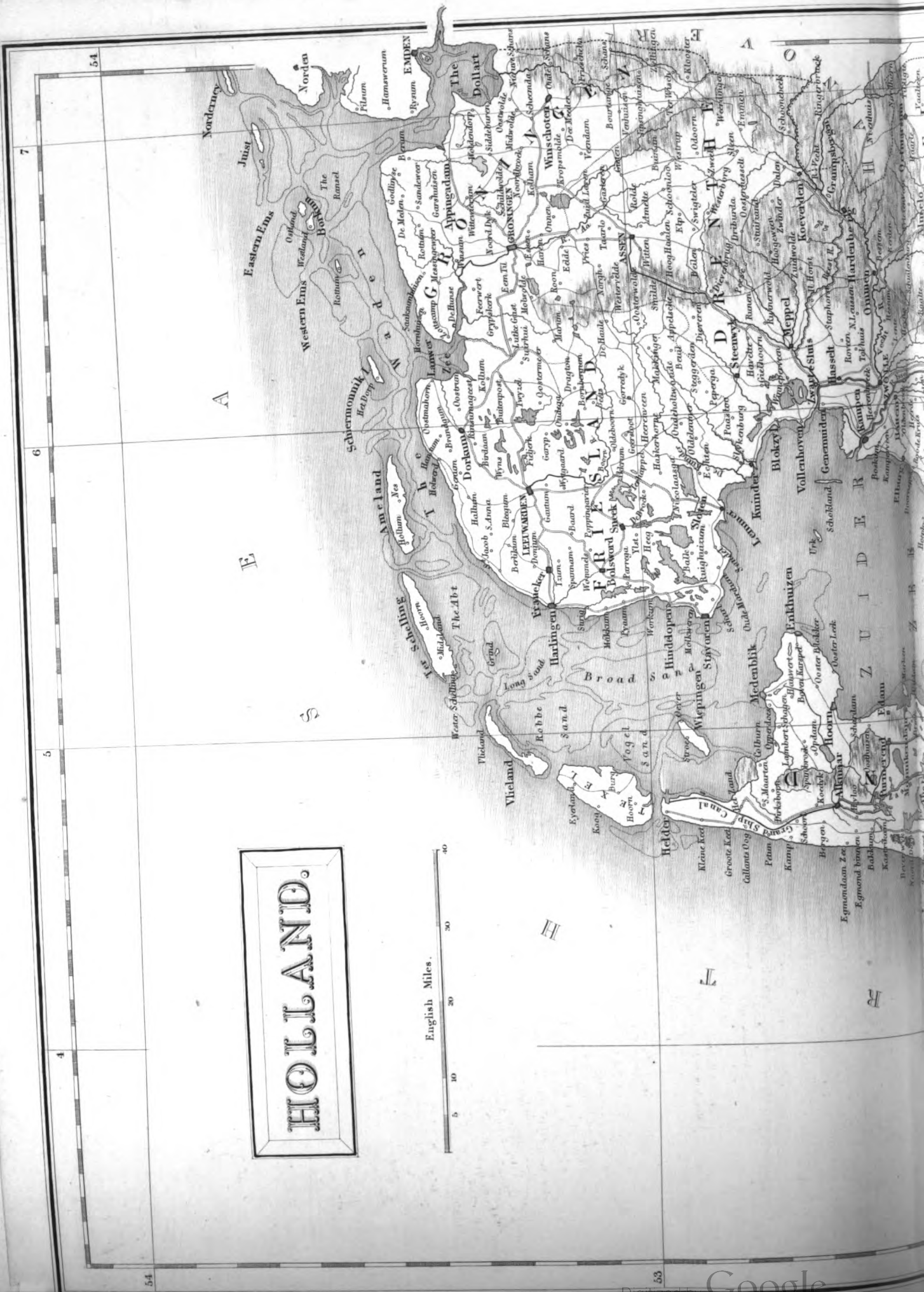
90

85

75

70

Engraved by S. Hall, Bury St. Edmunds.



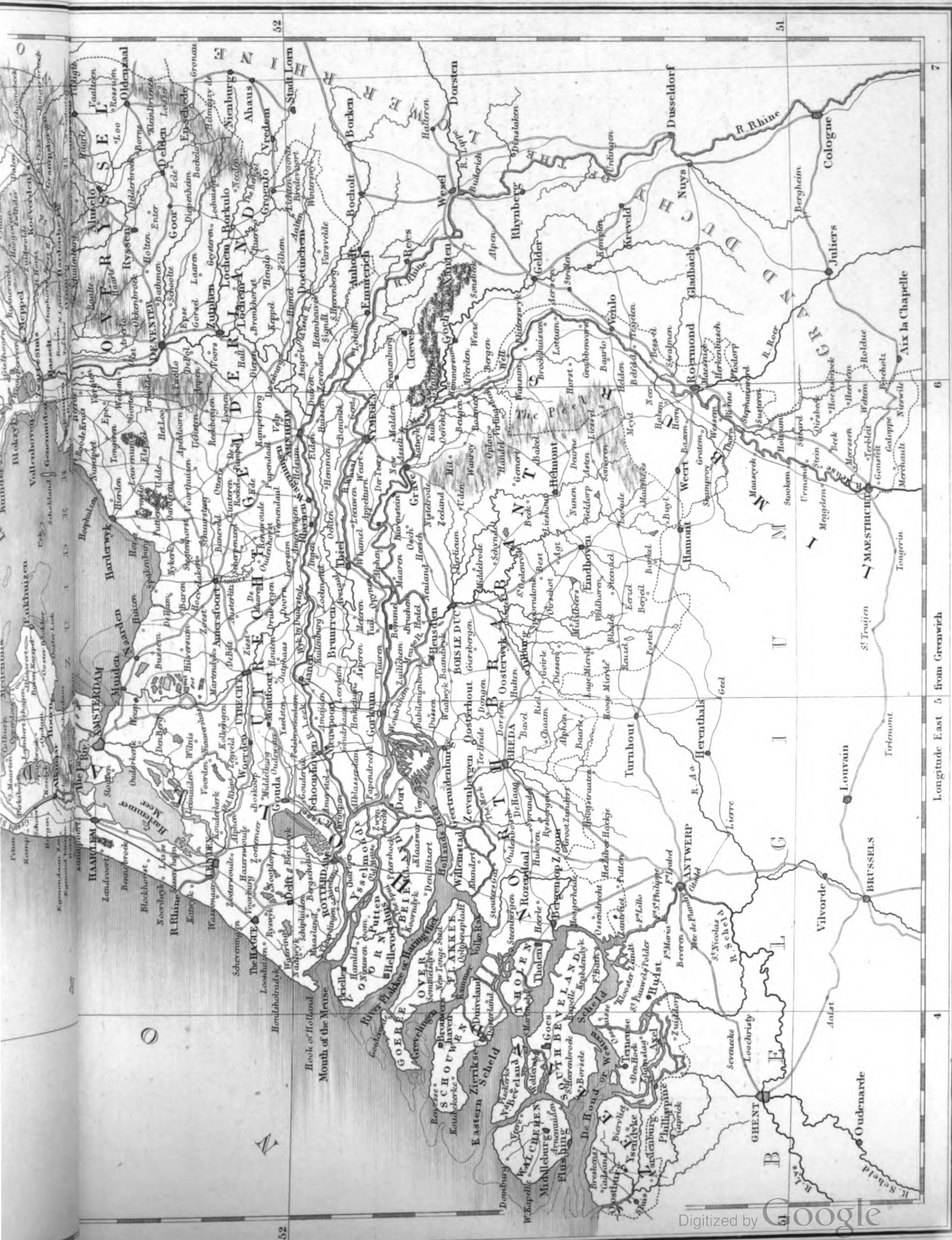


Fig. 1.

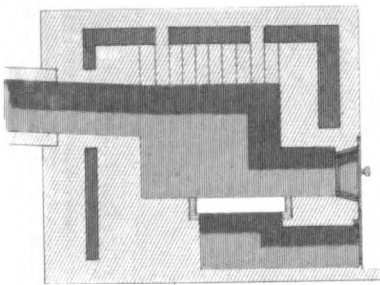


Fig. 2.

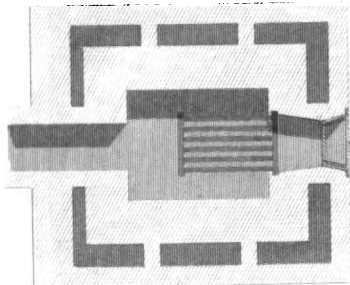


Fig. 3.

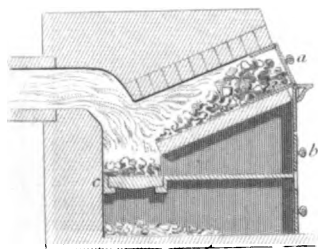


Fig. 13.



Fig. 14.

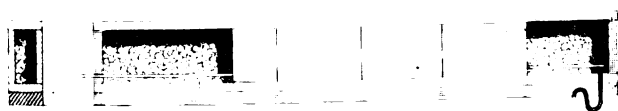


Fig. 15.



Fig. 16.

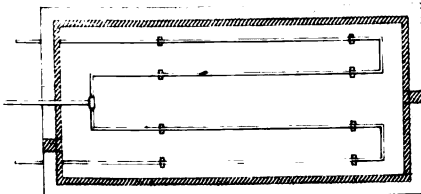


Fig. 4.

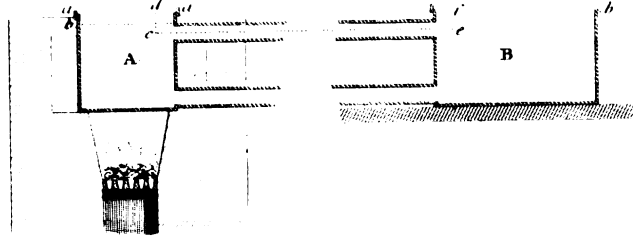


Fig. 5.

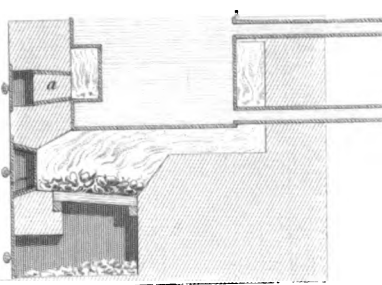


Fig. 9.

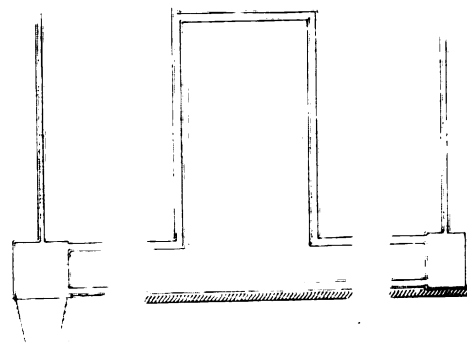


Fig. 10.

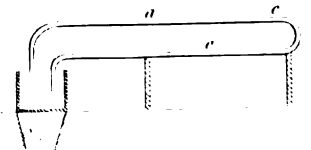


Fig. 11.

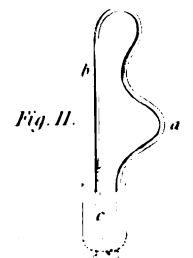


Fig. 12.

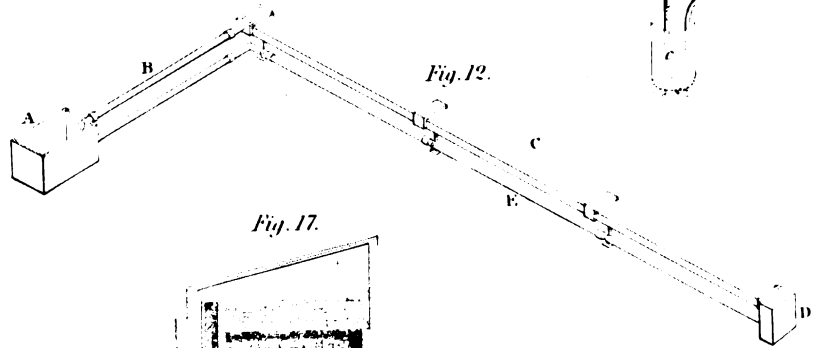


Fig. 17.



Fig. 18.

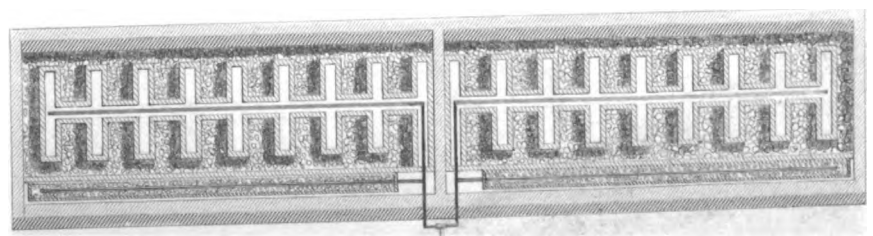


Fig. 7.

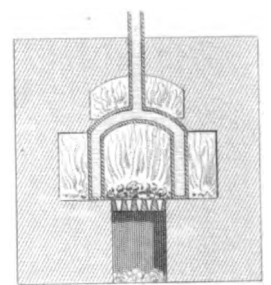


Fig. 6.

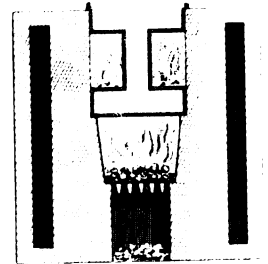


Fig. 2.

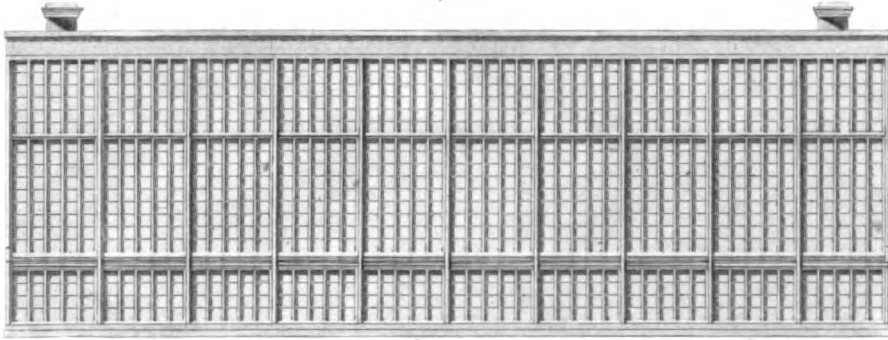


Fig. 1.

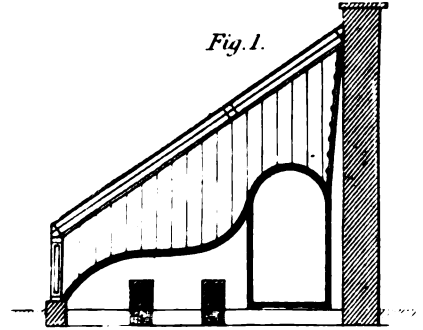


Fig. 4.

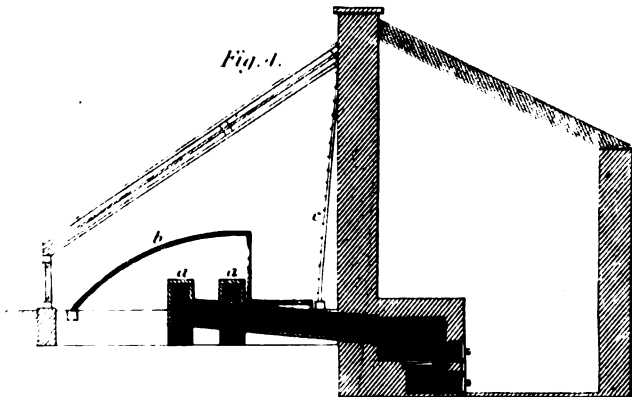


Fig. 3.

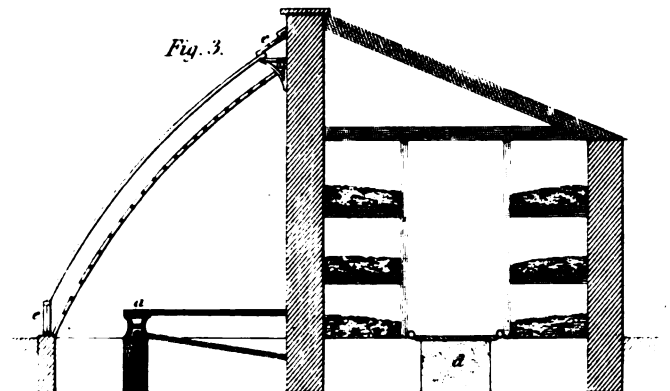


Fig. 5.

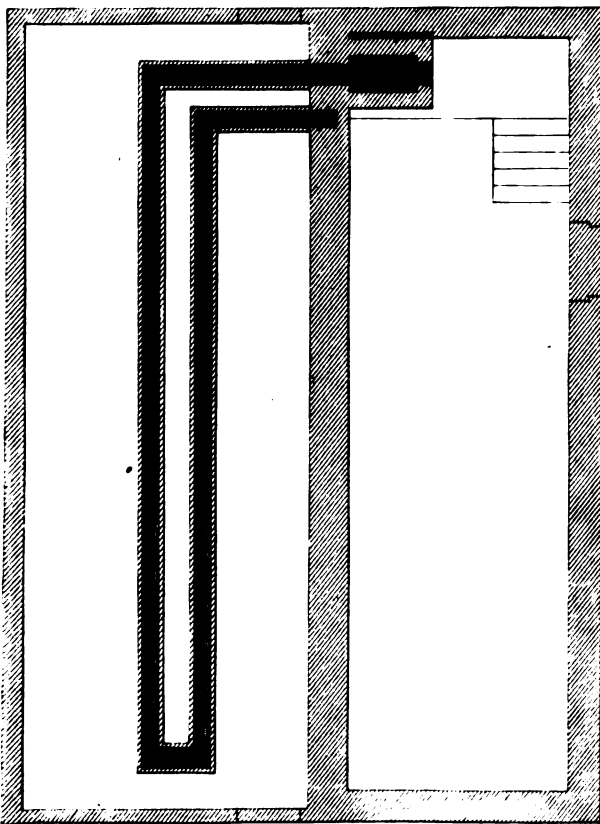
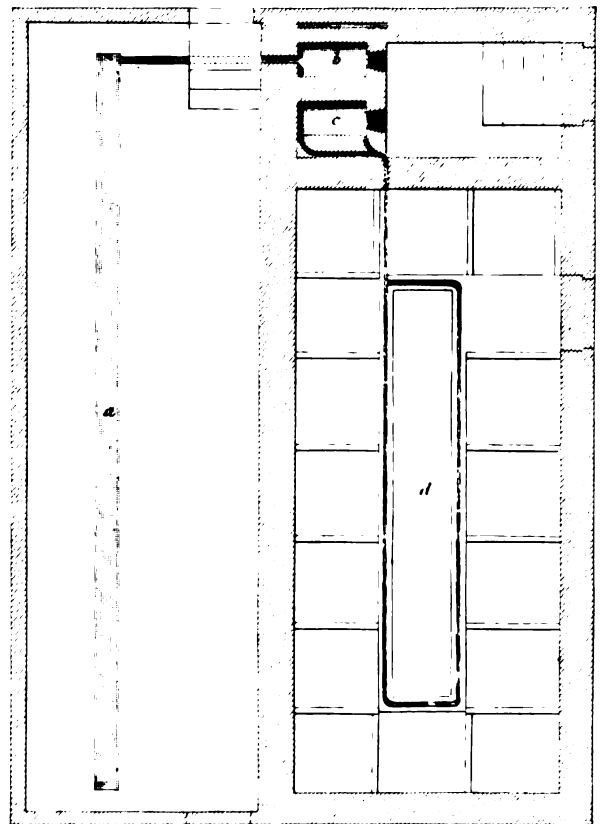


Fig. 6.



Scale

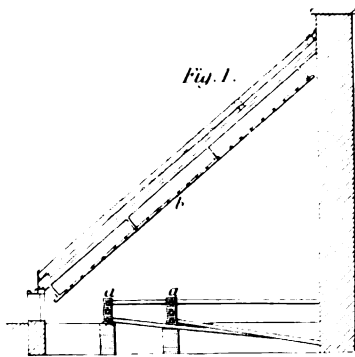


Fig. 1.

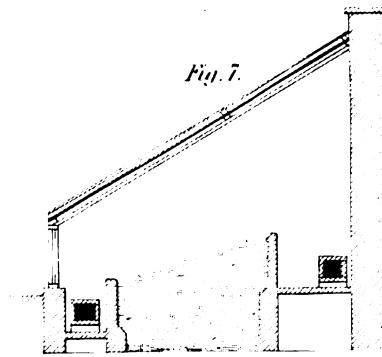


Fig. 7.

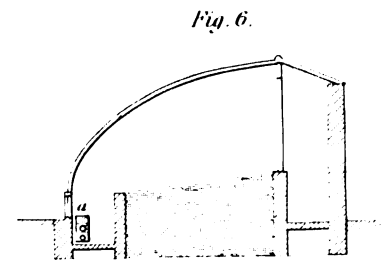


Fig. 6.

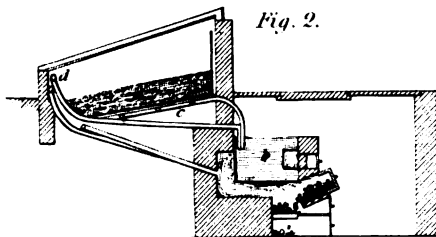


Fig. 2.

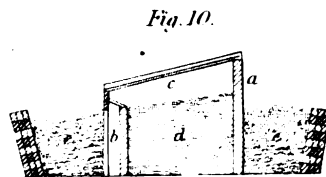


Fig. 10.

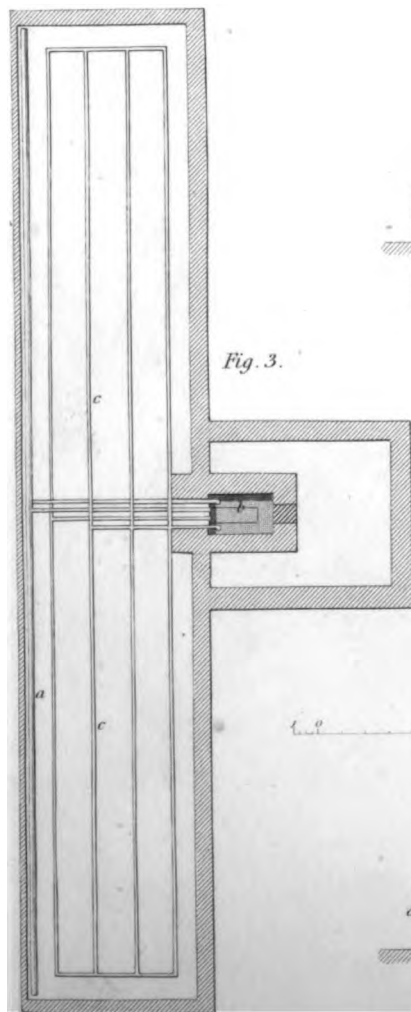


Fig. 3.

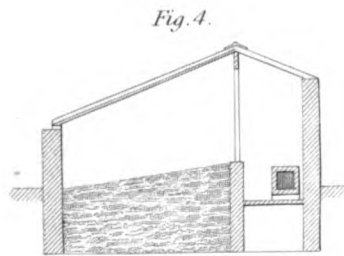


Fig. 4.

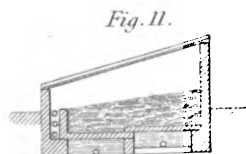


Fig. 11.

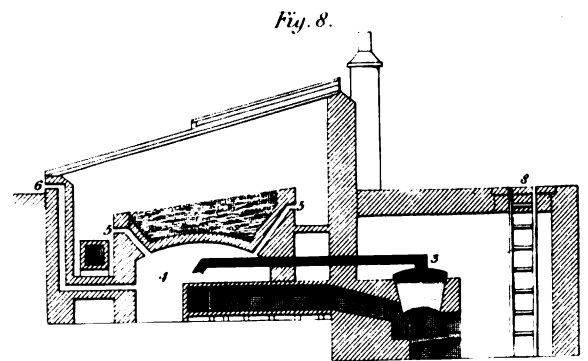


Fig. 8.

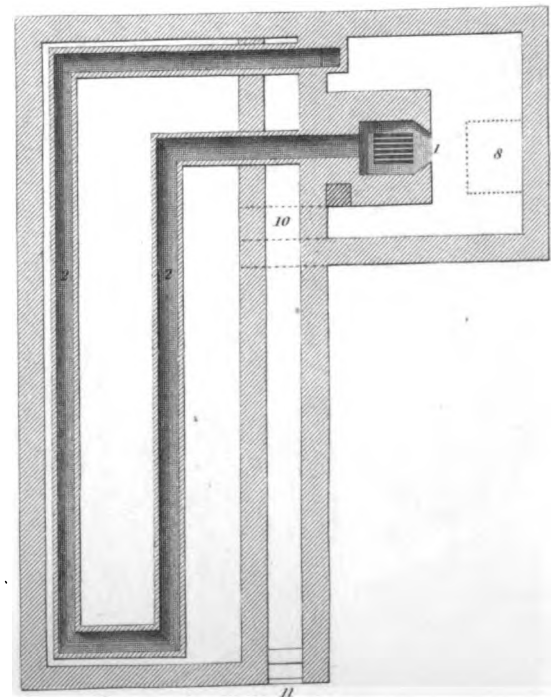


Fig. 9.

Scale 0 5 10 15 20 Feet

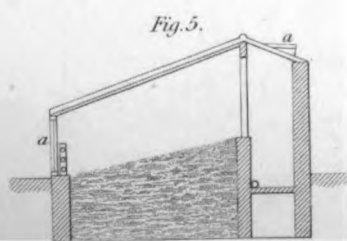


Fig. 5.

Fig. 1.

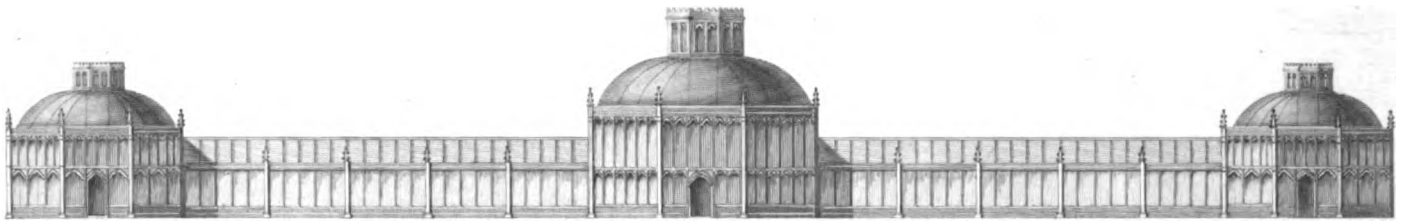


Fig. 2.

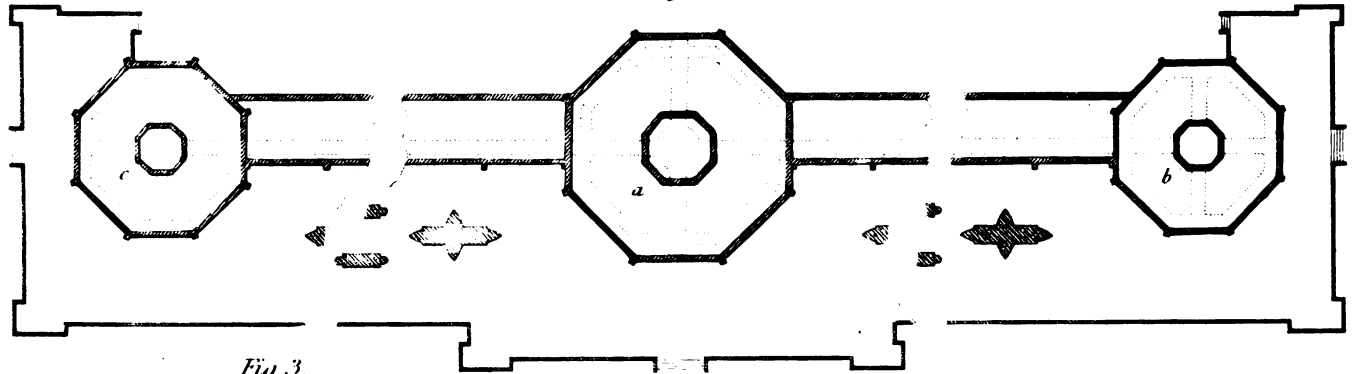


Fig. 3.

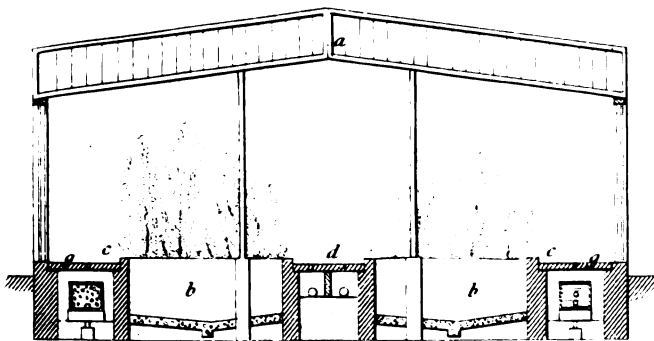


Fig. 4.

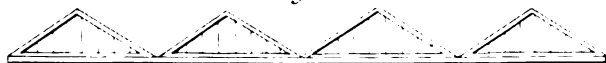


Fig. 6.



Fig. 7.

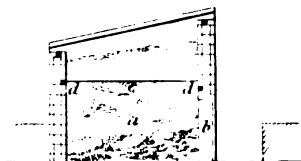


Fig. 5.

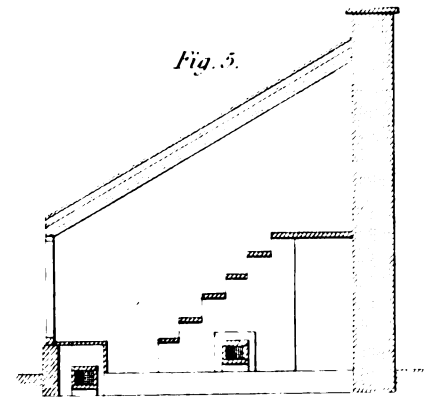
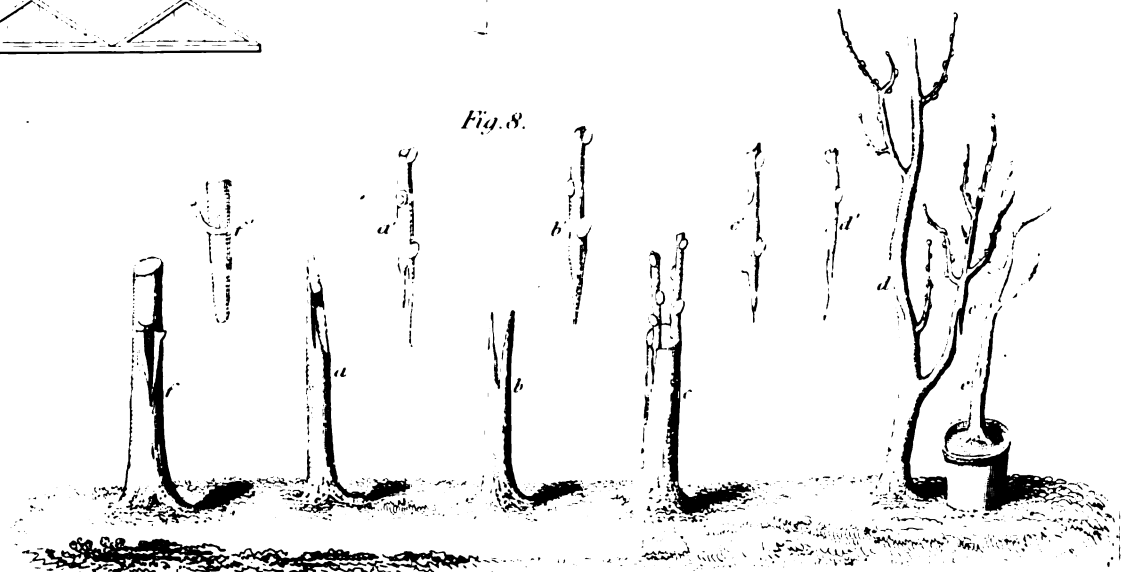


Fig. 8.



Scale.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

